

# University of the Philippines Open University

Faculty of Information and Communication Studies

## Course Module Archive

### MMS 198: Wearable Futures Hackathon

1st Trimester, AY 2022-2023

#### Prepared by:

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This archive contains the instructional materials for MMS 198: Wearable Futures Hackathon, a special topics course offered as part of the Bachelor of Arts in Multimedia Studies (BAMS) program at the University of the Philippines Open University (UPOU). Developed and facilitated by Diego Maranan, the course was conducted during the 1st Trimester of Academic Year 2022-2023.

Structured as an online speculative design and prototyping lab, the course invited students to imagine, design, and prototype wearable technologies situated in multiple possible futures. Using the BBC micro:bit and engaging in participatory design workshops, students explored critical fashion, physical computing, embodied interaction, and futures literacy. Each week built on speculative methods to deepen students' engagement with technological, social, and ecological challenges across different time horizons.

Modules were delivered asynchronously via a web-based platform and included embedded video, interactive tutorials, and collaborative reflections. Live workshops with international facilitators from the SEADS collective and the Emerging Futurists Residency complemented the learning experience.

For the best experience, access the full interactive site here:

-> <https://url.upou.edu.ph/WearableFuturesCourseModules>

This PDF archive includes:

1. A static version of the complete web-based course package;
2. Embedded artifacts, links, and activities from the original asynchronous design.

**License:**

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# Wearable Futures Hackathon Course Package



## Course overview

- ▶ Introduction and welcome
- ▶ Assessment guide

## All activities

- 📁 [wfh] Activities

## Weekly schedule

- 📁 Week 1: Imagining Futures
- 📁 Week 2: Wearables in the near future: Physical computing and critical fashion
- 📁 Week 3: Wearables in the far future: Humanity in outer space
- 📁 Week 4: Engaging with deep time
- 📁 Week 5: Speculative imagination and forecasting
- 📁 Week 6: Putting it together (part 1)
- 📁 Week 7: Putting it together (part 2)
- 📁 Week 8: Presenting and communicating speculative ideas

**This is a PDF archive of a Web-based set of modules created by Diego Maranan for Wearable Futures Hackathon, the special topic covered during the 1st Trimester of AY 2022-23 offering of MMS 198, for the Bachelor of Arts in Multimedia Studies program of UP Open University. The modules contain embedded video, web forms, and other interactive features that are best experienced by accessing the Web-based modules: <https://url.upou.edu.ph/WearableFuturesCourseModules>**



## Introduction and welcome

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- 👉 Introduction and welcome
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### ☰ On this page

- Course objectives
- Technical requirements
- Origins
- Art thinking and the Compass Framework
- Emerging Futurists Residency program
- Partners and collaborators

Hello, BAMS students, welcome to the Wearables Futures course, and thanks for joining me on this experiment! My name is Diego Maranan and I will be facilitating this course. (Because I'm also going to be the one putting together the course materials, I will often speak directly to you in the course material.)

## Course objectives

By the end of this course, I hope that you will be able to do the following:

- Describe different issues that may be present in probable, possible, and plausible futures.
- Situate your personal experiences and concerns within the context of futures thinking and speculative design practices
- Propose different creative solutions that respond to potential issues in future scenarios.
- Prototype imaginative wearable technologies that respond to these projections of future scenarios and issues.

## Technical requirements

In this course, you will be learning how to program the BBC micro:bit controller. You will need to purchase the microcontroller and other materials to assemble your kit. See 👉 Preparation before the course starts to get started.

## Origins

This course is the results of my explorations in several themes that I had been working on over the past several years:

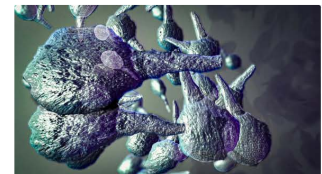
**Futures literacy.** I have been fascinated with futures thinking, forecasting, and the role that science fiction can have in the way we imagine (and shape) the future. We're often very bad at forecasting the future as a society, but usually there's a collection of people who can predict what might (at least for others) seem like the unpredictable. (Consider the epidemiologists who had long predicted that a pandemic like COVID-19 was going to happen.)



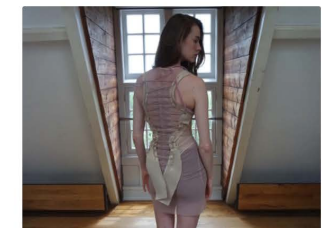
**Hacking for the good.** I think it's important to empowering people to be curious about technology—to understand how it works, to be critical with how it is given to us, and to be able to tinker with it to create better outcomes. For example, working with the SEADS collective, I have been interested in the ways that artificial, natural, and social systems can be used to create new symbiotic relationships.



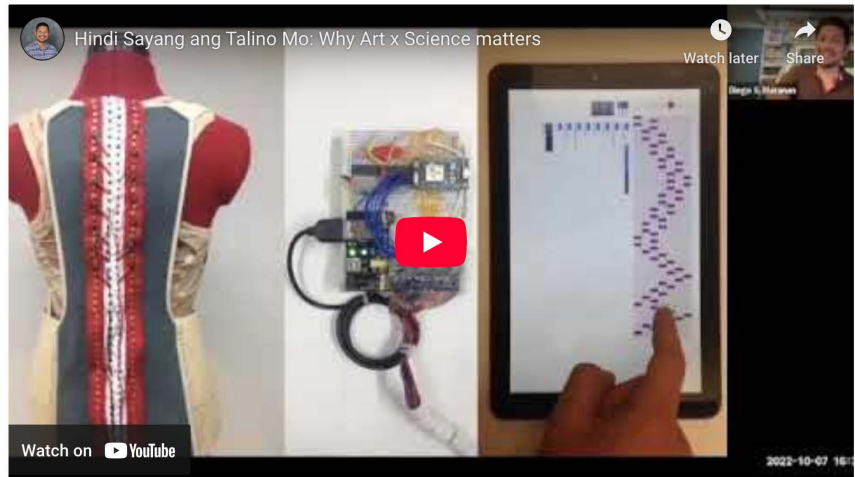
**The dynamic interactions between art and science.** The work I have been doing for the past 20 years has focused on how art, humanities, and science can work in concert to fundamentally change the way we understand the world.



**Wearable technologies.** I have working on certain types of wearable tech for some time now. I think wearable technology design is one of the easiest, most accessible ways for people to get into exploring and experimenting with hacking technology. Here's a talk I gave way back in 2016 about the research I was doing back then for my research.



To see how these kinds of ideas have worked its way through my practice in the past 20 years, I'd like to invite you to watch a recent talk I gave at the STS class at UP Diliman, embedded below.

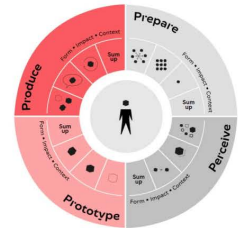


## Art thinking and the Compass Framework

This course aims to develop “art thinking” as opposed to design thinking, which you might have encountered in a previous course such as MMS 150 (UI/UX Design). The *Ars Electronica's Future Lab* website has a wonderful diagram that illustrates the difference that these approaches take, and which are shown below.

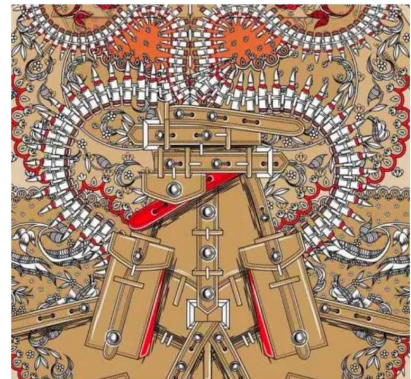


The design of this course also incorporates the Compass Framework, along with UPOU's standard principle and practices in outcomes-based online learning design and resource-based course authoring. The Compass is a framework for design thinking developed by the Index Project, with whom I trained as part of the Design to Improve Life designer competency training program organized by the Design Center of the Philippines.



## Emerging Futurists Residency program

This course is being conducted in coordination with Emerging Futurists Residency program. The Emerging Futurist Residency is a research and creative program hosted at the Bukas Space by the University of the Philippines Open University and supported by Space Ecologies Art and Design. This hybrid virtual/in-person residency focuses on supporting and nurturing exploration of multidisciplinary teams of artists, scientists, designers, engineers, and activists in futures thinking and futures literacy. The residency aims to deconstruct dominant paradigms about the future and develops alternative models through a combination of critical inquiry and hands-on experimentation. You will be getting to know the first residents of this program because you will be attending their talk and they will be providing feedback on your work.



## Partners and collaborators

This course is being facilitated with the help of Lucky Vengua, a senior BAMS student who is working with me on this as part of his MMS 200 project.

I had mentioned SEADS, which is a transdisciplinary and cross-cultural collective of artists, scientists, engineers and activists that I co-founded. Our members come from all corners of the world, including the Philippines, Malaysia, Kosovo, Belgium and the US. One of my goals is grow the SEADS community here in the Philippines, and I hope to do this through this course. A number of international facilitators from SEADS will be creating special workshops just for you! You will get to meet them in later weeks.





# Assessment guide

## ▼ Contents

- 📄 Introduction and welcome
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## ☰ On this page

- Course assessment
- Final project grading

For this course, the grade transmutation scheme used will be *permissive*. Because of the nature of the course, the assessment will be done in a holistic way, as described in the rubric below.

## Course assessment

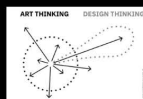
### ☰ Table

Aa Name	#	Weight	Description
Basic compliance with class activities		30%	<p><b>Activity completion of activities:</b> did you actually do the activities assigned to you in the Google Classroom?</p> <p><b>Quality of responses:</b> did you interact with or respond to the activity, your classmates, and your tutors in a meaningful way that led to your personal growth and the growth of others?</p>
Personal growth throughout the class		20%	<p><b>Jailbreaking your mind:</b> Overall, to what extent did you break out of the norm, your mindset, your comfort zone, and current perceptions? Overall, did you take more creative and intellectual risks as you progressed throughout the class?</p> <p>How well did you attempt to expand your personal cone of possible futures?</p> <p><b>Persistence and adaptability:</b> in electronics and in design, things will go wrong. How well did you recover from mistakes and push through? How well do you respond and take advantage of feedback from peers,</p> <p><b>Skill-building:</b> Did you significantly expand your repertoire of skills compared to when you started the class?</p>
Final Project		50%	<p><b>Overall impact:</b> How creative and fascinating is your final projects? How would the project be used by others, and will it be used in novel, unusual, or highly impactful ways?</p> <p><b>Scope and process:</b> How deep did your research and exploration go? How much work did you put in? How independently did you work on this? How well did you work with others?</p> <p><b>Technical implementation:</b> How well did you execute the project?</p> <p><b>Conceptual strength:</b> How well does your project tie in with the themes of the course? How well does it critically engage with futurism and the theoretical concepts presented throughout the class?</p> <p><b>Documentation:</b> We don't want you to make a pitch; this is not Shark Tank! We would rather that you spend more time working on your actual project than making a slick presentation. However, you will be asked to document your project in a way that others can easily learn about your project</p>

SUM 100%

## Final project grading

The final project will be graded using the following considerations:



**Art- and futures-thinking:** To what extent does the project expand our notion of what is plausible in the future? To what extent does the project embody a creative way of anticipating or shaping futures?

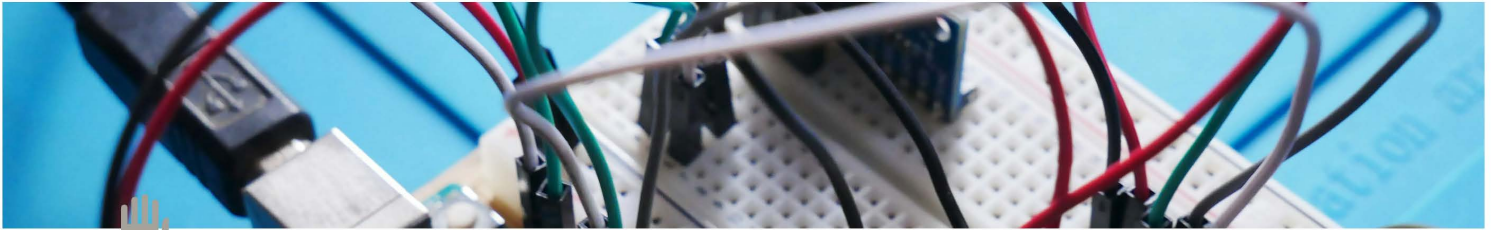


**Implementation:** How well did you execute the final prototype? To what extent does the final prototype approach the ideal version of the technology? How do the visual and other sensory aspects of the project create a compelling experience for the user or the audience?



**Relevance and poetics:** If the prototype is a work of critical or speculative design, how well is it contextualized with respect to the issue you have identified? If it is meant as a functional design, to what extent does it address the needs or desires of your intended typical user with respect to the issue you have identified?





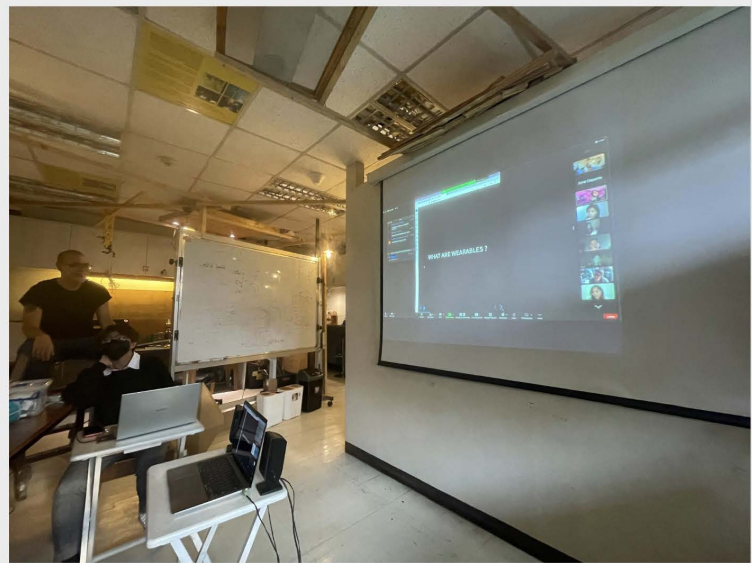
# Preparation before the course starts

- Schedule: Before class starts
- Due date or event...: October 1, 2022
- Activity Type: Hands-on activities (general)
- # Minutes required ...: 120
- Corresponding C...: 3a (Develop)
- 1 more property

- ▼ Contents
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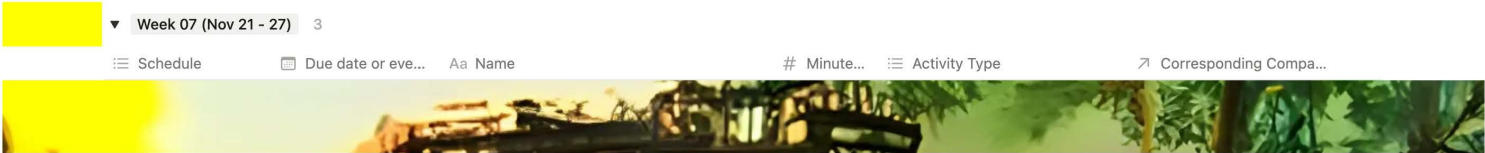
**!** If you haven't purchased your equipment yet, find list of equipment on <https://bukas.upou.edu.ph/post/691760347074461696/shopping-list-for-hackathon-participants> As it turns out, a few of the equipment are challenging to source (e.g., the breakout board) so the UPOU staff will work on that for you.



### Shopping list for hackathon participants

We're putting together the list of things for the Wearable Futures Hackathon participants to have on hand before classes even start.

If you have been participating in the hackathon, [click here to view the list of things that you should purchase](#). (A screenshot of the list is shown below.) If you want UPOU to buy your purchases back from you, you should *keep the all the original packaging and the waybill attached to the packaging*; this is very important if you want to be reimbursed.



# [wfh] Activities

☰ By schedule ☰ By type (board) ☰ By duration ☰ By type (list)

☰ ↕ 🔍

▼ **Before class starts** 1

Schedule	Due date or eve...	Aa Name	# Minute...	Activity Type	Corresponding Compa...
Before class starts	October 1, 2022	👤 Preparation before the course starts	120	Hands-on activities (general)	3a (Develop)
			SUM 120		

▼ **Week 01 (Oct 10 - 16)** 8

Schedule	Due date or eve...	Aa Name	# Minute...	Activity Type	Corresponding Compa...
Week 01 (Oct 10 ...)	October 12, 2022	🗣️ Present, later, further out	10	Reflection and sharing	1c (Choose)
Week 01 (Oct 10 ...)	October 12, 2022	🗣️ Tell us about yourself	30	Reflection and sharing	1a (Explore)
Week 01 (Oct 10 ...)	October 13, 2022	📺 Imagining different futures	30	Watch/listen/read and discuss	2a (Research) 2b (Analyze)
Week 01 (Oct 10 ...)	October 14, 2022	🔧 Flashing Heart (micro:bit tutorial)	45	Hands-on activities (wearable...)	2a (Research) 3a (Develop)
Week 01 (Oct 10 ...)	October 14, 2022	👤 Imagining yourself in the future, part 1: Get acquainted with the older you	15	Hands-on activities (general)	2a (Research) 2b (Analyze)
Week 01 (Oct 10 ...)	October 14, 2022	🔧 Name Tag (micro:bit tutorial)	20	Hands-on activities (wearable...)	2a (Research) 3a (Develop)
Week 01 (Oct 10 ...)	October 14, 2022	📺 Tangible interfaces, embodied interaction, and wearable computing	20	Watch/listen/read and discuss	1a (Explore) 2a (Research)
Week 01 (Oct 10 ...)	October 15, 2022	📺 Introducing Speculative Design	51	Watch/listen/read and discuss	2a (Research)
			SUM 221		

▼ **Week 02 (Oct 17 - 23)** 6

Schedule	Due date or eve...	Aa Name	# Minute...	Activity Type	Corresponding Compa...
Week 02 (Oct 17 ...)	October 17, 2022	👤 Imagining yourself in the future, part 2: Photograph a wearable object	30	Hands-on activities (general)	2b (Analyze) 2a (Research) 3b (Shape)
Week 02 (Oct 17 ...)	October 18, 2022	📺 Island Punk	60	Watch/listen/read and discuss	2a (Research)
Week 02 (Oct 17 ...)	October 19, 2022	🔧 Dice (micro:bit tutorial)	30	Hands-on activities (wearable...)	2a (Research) 3a (Develop)
Week 02 (Oct 17 ...)	October 20, 2022	🔧 Clap Lights (micro:bit tutorial)	30	Hands-on activities (wearable...)	2a (Research) 3a (Develop)
Week 02 (Oct 17 ...)	October 21, 2022	🗣️ The Terno Project: 2022 Resident Emerging Futurists' talk	134	Synchronous interaction	1a (Explore) 2a (Research)
Week 02 (Oct 17 ...)	October 22, 2022 4:00 PM → 7:00 PM	🗣️ Speculative design and wearable tech workshop with Ann Peeters	270	Synchronous interaction Hands-on activities (general)	1b (Organize) 3a (Develop) 3b (Shape) 2a (Research) 2c (Describe)
			SUM 554		

▼ **Week 03 (Oct 24 - 30)** 8

Schedule	Due date or eve...	Aa Name	# Minute...	Activity Type	Corresponding Compa...
Week 03 (Oct 24 ...)	October 24, 2022	🔧 Do the Step Counter tutorial (micro:bit)	20	Hands-on activities (wearable...)	2a (Research) 3a (Develop)
Week 03 (Oct 24 ...)	October 24, 2022	🔧 Prototype a wearable idea using the micro:bit	30	Hands-on activities (wearable...)	2a (Research)
Week 03 (Oct 24 ...)	October 25, 2022	🗣️ Treasure hunt 1: Wearables and etextile swatches	90	Treasure hunts	1b (Organize) 2a (Research)
Week 03 (Oct 24 ...)	October 26, 2022	📺 Underwear in outer space	10	Watch/listen/read and discuss	2a (Research)
Week 03 (Oct 24 ...)	October 27, 2022	📺 Indigenous perspectives on space exploration	45	Watch/listen/read and discuss	2a (Research)
Week 03 (Oct 24 ...)	October 28, 2022	📺 Science fiction and the future	30	Watch/listen/read and discuss	2a (Research)
Week 03 (Oct 24 ...)	October 28, 2022	📺 The MFL workshop storyline	45	Watch/listen/read and discuss	1a (Explore)
Week 03 (Oct 24 ...)	October 29, 2022 4:00 PM → 6:00 PM	🗣️ Meta-Futurism Lab workshop (1 of 2)	120	Synchronous interaction Hands-on activities (general)	1b (Organize) 1a (Explore) 1c (Choose)
			SUM 390		

▼ Week 04 (Oct 31 - Nov 6) 5

Schedule	Due date or eve...	Aa Name	# Minute...	Activity Type	Corresponding Compa...
Week 04 (Oct 31 ...	November 2, 2022	▶ What is deep time?	15	Watch/listen/read and discuss	2a (Research)
Week 04 (Oct 31 ...	November 2, 2022	▶ Where do humans fit in the big story of deep time?	0	Watch/listen/read and discuss	2a (Research)
Week 04 (Oct 31 ...	November 3, 2022	▶ Experiencing deep time through art and media	30	Watch/listen/read and discuss	2a (Research) 2b (Analyze)
Week 04 (Oct 31 ... Week 07 (Nov 21 ...	November 3, 2022	🔧 Using Micro:bit simulators on Tinkercad + incorporating physical components	90	Hands-on activities (wearable...	2a (Research) 3a (Develop)
Week 04 (Oct 31 ...	November 4, 2022	🔍 Treasure hunt 2: Replicating an existing project	45	Treasure hunts	1b (Organize) 2a (Research)

SUM 180

▼ Week 05 (Nov 7 - 13) 6

Schedule	Due date or eve...	Aa Name	# Minute...	Activity Type	Corresponding Compa...
Week 05 (Nov 7 - ...	November 7, 2022	▶ Becoming a Time Rebel and a Good Ancestor	82	Watch/listen/read and discuss	2a (Research)
Week 05 (Nov 7 - ...	November 8, 2022	▶ The evolved continuation of the MFL workshop storyline	2	Watch/listen/read and discuss	3c (Test) 2b (Analyze) 3b (Shape) 3a (Develop)
Week 05 (Nov 7 - ...	November 8, 2022 4:30 PM → 6:30 PM	👥 Meta-Futurism Lab Workshop (2 of 2)	120	Synchronous interaction	1b (Organize)
Week 05 (Nov 7 - ...	November 9, 2022	▶ Utopia, Dystopia, and Heterotopia	20	Watch/listen/read and discuss	3b (Shape)
Week 05 (Nov 7 - ...	November 10, 2022	▶ Imagining yourself in the future, part 3: PAGTANAW 2050 forecast	90	Watch/listen/read and discuss	3b (Shape) 2b (Analyze)
Week 05 (Nov 7 - ...	November 11, 2022	🔧 Replication project check-in	5	Hands-on activities (wearable...	3a (Develop)

SUM 319

▼ Week 06 (Nov 14 - 20) 5

Schedule	Due date or eve...	Aa Name	# Minute...	Activity Type	Corresponding Compa...
Week 06 (Nov 14 ...	November 14, 2022 10:00 AM → 12:00 PM	👥 F2F meeting at Bukas Space	15	Synchronous interaction	4c (Produce) 3c (Test)
Week 06 (Nov 14 ...	November 14, 2022 10:15 AM	🔧 Rapid-fire exercise: Designing wearable tech for 2050	45	Hands-on activities (general) Hands-on activities (wearable... Synchronous interaction	3a (Develop) 3b (Shape)
Week 06 (Nov 14 ... Week 07 (Nov 21 ...	November 15, 2022 → November 25, 2022	🔧 Drop-in sessions @ Bukas space		Synchronous interaction	3a (Develop) 3b (Shape) 1b (Organize) 2a (Research) 2c (Describe)
Week 06 (Nov 14 ...	November 15, 2022	▶ Introducing Speculative Design (part 2): Probable, Possible, Plausible, and Preferable Futures	90	Watch/listen/read and discuss	2a (Research) 1c (Choose)
Week 06 (Nov 14 ...	November 20, 2022	🔧 Learn about the final project requirements and register your final project proposals	60	Hands-on activities (general)	4a (Collect) 3b (Shape) 2c (Describe)

SUM 210

▼ Week 07 (Nov 21 - 27) 3

Schedule	Due date or eve...	Aa Name	# Minute...	Activity Type	Corresponding Compa...
Week 04 (Oct 31 ... Week 07 (Nov 21 ...	November 3, 2022	🔧 Using Micro:bit simulators on Tinkercad + incorporating physical components	90	Hands-on activities (wearable...	2a (Research) 3a (Develop)
Week 06 (Nov 14 ... Week 07 (Nov 21 ...	November 15, 2022 → November 25, 2022	🔧 Drop-in sessions @ Bukas space		Synchronous interaction	3a (Develop) 3b (Shape) 1b (Organize) 2a (Research) 2c (Describe)
Week 07 (Nov 21 ...	November 21, 2022 11:30 AM → November 28, 2022 9:30 AM	👥 Present your proposal for your final project (Bukas/Zoom)	90	Synchronous interaction	4b (Communicate) 3c (Test) 3b (Shape) 3a (Develop) 1b (Organize) 1c (Choose) 2c (Describe)

SUM 180

▼ Week 08 (Nov 28 - Dec 2) 3

Schedule	Due date or eve...	Aa Name	# Minute...	Activity Type	Corresponding Compa...
Week 08 (Nov 28 ...	November 28, 2022	🔧 ...	90	Hands-on activities (wearable...)	...

Week 08 (Nov 28 ...)	November 28, 2022	Communicating speculative design ideas (1): Curious Rituals	20	Watch/listen/read and discuss	4b (Communicate)
Week 08 (Nov 28 ...)	November 28, 2022	Communicating speculative design ideas	15	Watch/listen/read and discuss	4b (Communicate)
Week 08 (Nov 28 ...)	November 28, 2022	Communicating speculative design ideas (2): Circumventive Organs	15	Watch/listen/read and discuss	4b (Communicate)
Week 08 (Nov 28 ...)	November 30, 2022	Treasure hunt 3: Good practices in presenting and communicating ideas	20	Treasure hunts	1b (Organize) 2a (Research)

SUM 55

▼ Week 11 1

☰ Schedule	📅 Due date or eve...	Aa Name	# Minute...	☰ Activity Type	↗ Corresponding Compa...
Week 11		Imagining yourself in the future, part 3: Write a letter to future self			

SUM 0

⋮ Show 2 more groups

∨ 2 hidden groups








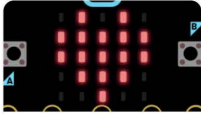

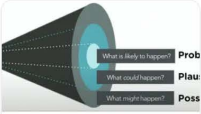
# Week 1: Imagining Futures

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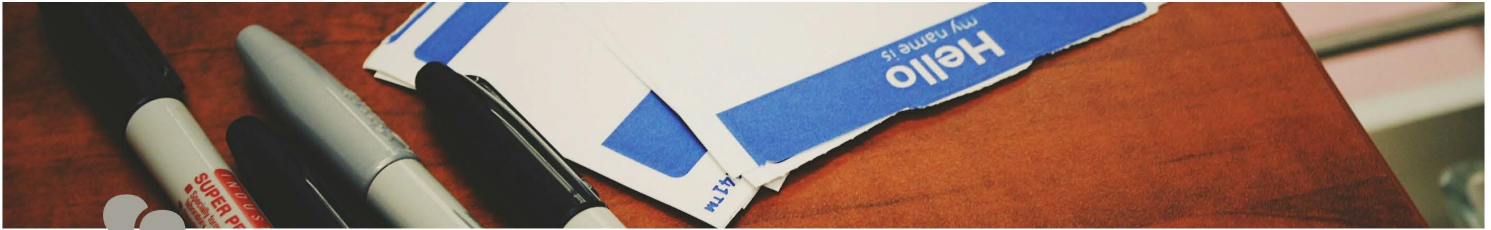
This page lists the activities you need to accomplish for Week 1. If you haven't read the [Introduction and welcome](#), [Preparation before the course starts](#), and [Assessment guide](#) pages yet, go do that now! Then return to this page and check out the various activities.

## Activities

### ▼ Week 01 (Oct 10 - 16) 8

 <p><b>Tell us about yourself</b></p> <p>October 12, 2022</p> <p>30</p>	 <p><b>Present, later, further out</b></p> <p>October 12, 2022</p> <p>10</p>	 <p><b>Imagining different futures</b></p> <p>October 13, 2022</p> <p>30</p>	 <p><b>Imagining yourself in the future, part 1: Get acquainted with the older you</b></p> <p>October 14, 2022</p> <p>15</p>
 <p><b>Tangible interfaces, embodied interaction, and wearable computing</b></p> <p>October 14, 2022</p> <p>20</p>	 <p><b>Flashing Heart (micro:bit tutorial)</b></p> <p>October 14, 2022</p> <p>45</p>	 <p><b>Name Tag (micro:bit tutorial)</b></p> <p>October 14, 2022</p> <p>20</p>	 <p><b>Introducing Speculative Design</b></p> <p>October 15, 2022</p> <p>51</p>

▼ 13 hidden groups



# Tell us about yourself

- Schedule: Week 01 (Oct 10 - 16)
- Due date or event...: October 12, 2022
- Activity Type: Reflection and sharing
- Minutes required ...: 30
- Corresponding C...: 1a (Explore)
- Related to Table 2...: No access
- 1 more property

- Join the Discord channel for the course.
- Introduce yourself to the class via the Discord group by answering the following questions:
  - How do you prefer to be called?
  - What are your expectations regarding the Wearable Futures Hackathon?
  - When we say "Future" how far along do you see? Tomorrow? 1 year? 5 years?
  - Are you a fan of science fiction? What science fiction movies or stories have you enjoyed watching or reading recently?
  - If you are given a chance to be a mix of 2 fictional characters, what would you be and why?
- As part of the course, we will have international facilitators leading a series of synchronous workshops. Please help them prepare the workshop for you by filling in the form below.

(Click here if you can't see the form.)

## Tell the Wearable Futures Hackathon organizers about yourself

As part of the course, we will have international facilitators leading a series of synchronous workshops. Please help them prepare the workshop for you by filling in this form. Make sure you tick "Email me a copy of my responses" at the end of the form. Many thanks!



Once you submit your answers, part of your answers will be displayed below, but your name is removed.

2022-10-04: [Redacted]

1.2. What are three big challenges you want to address in the next 50 years are:  
The three significant challenges I want to address in the next 50 years are:

1st: Figure out my purpose in life in terms...

1.2. What keeps you up at night?  
To be honest, right now, I have nothing that worries me. The only thing that keeps me up at night is KDrama and Anime hehe.

1.2. Tell us how you feel about clothing and other...  
As I mentioned that I not only create content about fashion, but I have had a great passion for it ever since I was a toddler. Clothes, accessories, and shoes ...

2022-10-05: [Redacted]

1.2. What are three big challenges you want to address in the next 50 years are:  
First is sustainable living, Second is digital agnosticism where many older misinformed Filipinos tend to condemn modern day issues as the outcomes of ...

1.2. What keeps you up at night?  
I dont have anything that keeps me up at night, other than video games of course. But regards to worries, I am having much concern regarding the state of our countr...

1.2. Tell us how you feel about clothing and other...  
I think clothes are an extension of a person's character. An introverted person like myself would prefer subtle and simple silhouettes to veer away from the ...

2022-10-05: [Redacted]

1.2. What are three big challenges you want to address in the next 50 years are:  
Climate change, Social Justice for Media People and Human Rights, Drastic decline of quality education in the PH

1.2. What keeps you up at night?  
I think about the future in the Philippines is quite bleak and how I, as a multimedia practitioner can help my community and myself personally, in my expertise.

1.2. Tell us how you feel about clothing and other...  
I don't have much attachment to clothes on myself but as a fashion student in my high school days, I find its importance in making one look decent even with ...

2022-10-05: [Redacted]

1.2. What are three big challenges you want to address for the next 50 years are, first, sustainability. If we genuinely care for the future generation and for us to have the ...  
1.2. What keeps you up at night?

2022-10-05: [Redacted]

1.2. What are three big challenges you want to address in the next 50 years are:  
Social change in terms of equality and justice.

1.2. What keeps you up at night?

2022-10-05: [Redacted]

1.2. What are three big challenges you want to address in the next 50 years are:  
Environmental Problems, Technology Insufficiency, Health Problems

1.2. What keeps you up at night?

I honestly sleep so well. But what worries me is the uncertainty of the future. I kept thinking and questioning if I was on the right track or if what am doing now will ...

1.2. Tell us how you feel about clothing and othe...  
Clothes and personal items we wear express who we are as a person. I think it

I have work, which is 9am-6pm daily. I rarely sleep late these days because I'm usually tired already and just want to sleep.

1.2. Tell us how you feel about clothing and othe...  
I believe that the clothes I choose to wear are a reflection of who I am. I am a

Usually, my anxious thoughts keep me at night (i.e., personal problems). Academic works also keep me up at night.

1.2. Tell us how you feel about clothing and othe...  
I personally feel that clothes and personal items entail a person. They show who the



# Present, later, further out

- Schedule: Week 01 (Oct 10 - 16)
- Due date or event...: October 12, 2022
- Activity Type: Reflection and sharing
- Minutes required ...: 10
- Corresponding C...: 1c (Choose)
- Related to Table 2...: No access
- 1 more property

Think about the issues the challenges you want to address, the causes that matter to you, the worries that keep you up at night, or the concerns that you care about. You had previously shared this information [Tell us about yourself](#). Some of these challenges, causes, worries, or concerns might be situated in the present or in the short term. On the other hand, some of them might have to be dealt with later, in the medium term. Still others might live further out in the future, in the long term.

Using the form below, tell us what you have in mind when you think of what terms mean for you (short, medium, and long term futures). Answer honestly; you won't be graded based on this activity alone. And make sure you email yourself a copy of your own response.

**In [Tell us about yourself](#), we limited the time scale to 50 years, but for this activity you don't have to limit yourself to that. Perhaps for you, thinking 10 years down the line is already an act of long-term thinking; perhaps for you 50 years feels like it's about to come tomorrow. If you need to be reminded of what you had written down, tell us and we'll email you a copy of your responses.**

**If you can't see the form below, open the [form](#) in a new window.**

## Present, later, further out

How long away from the present time is the short-term future that you care about? \*

In this field, enter a number. In the next field, select a unit of time. For example, enter "60" in this box and "seconds" in the next field if you want to say that for you, short-term concerns lie around 30 seconds into the future. Try your best to provide this estimate. Enter a number...

... \*  
and a unit of time.



# Imagining different futures

- Schedule: Week 01 (Oct 10 - 16)
- Due date or event...: October 13, 2022
- Activity Type: Watch/listen/read and discuss
- # Minutes required ...: 30
- Corresponding C...: 2a (Research), 2b (Analyze)
- Related to Table 2...: No access, No access
- 1 more property

This video was recommended by BAMS senior student, Lucky Vengua, who also wrote the introductory text below!

Why is it important to imagine different futures? Is the future part of the realm of fiction since it hasn't even happened yet? This TedTalk video by Anab Jain presents some compelling information as to why we should take part in imagining the future, or better yet a future we want to see and be part of. This video partly inspired the Wearable Futures Hackathon that we are part of, it encapsulates the goal of what we are aiming for, "to think out of the box and take an active part in the future". Because even if we like it or not, our actions and the steps we take today is part of the future that will take place.

While watching the video I would like you to ask yourselves these questions:

1. How rooted in our present reality are the scenarios presented?
2. How can I be affected by these futures?
3. How do I start imagining different futures and work towards or against that future?
4. Think of different scenarios and share it with us.

This is an essential part of the WFH experience. Remember, space flight, self-driving cars, video calls, mobile devices, and a whole lot of other innovations came from fiction and a vivid imagination before it became reality.





# Imagining yourself in the future, part 1: Get acquainted with the older you

- Schedule: Week 01 (Oct 10 - 16)
- Due date or event...: October 14, 2022
- Activity Type: Hands-on activities (general)
- Minutes required ...: 15
- Corresponding C...: 2a (Research), 2b (Analyze)
- Related to Table 2...: No access, No access
- 1 more property

If you watched the video from Introduction and welcome you'll have been introduced to a study that studied how people would make different decisions about the future when they could imagine themselves better in that future. When they could more concretely imagine themselves inhabiting the future, the study suggest that they tend to value the rewards of the future more. (The tendency to value the rewards of the future less is called temporal discounting.)

**For this activity, use a face-aging app to approximate how you might look as an older person.**

1. Download a face-modification app. I recommend FaceApp. (There were some concerns about FaceApp privacy in the past, but this article should answer any questions you might have.)
2. Age yourself using the app!
3. Take a look at this older version of yourself. What comes to mind as you look at this older version of yourself? What emotions come up? Think back to the answers you provided to Tell us about yourself. Looking at this older version of yourself, how would you answer the question of what things you are concerned about for the future?
4. For the rest of the term, I invite you to change your profile picture on our Discord channel. (And if you so feel inclined, your UP-based Google account and your MyPortal profiles as well.) I also invite you to put up this aged photo of yourself everywhere: on your phone's lock screen, printed out and stuck to your refrigerator, next to your bathroom mirror so that everyday you can see this older version of yourself everyday. See whether this makes a difference in the way you feel about the future in general as the course progresses.
5. Share your pic using the form below.

## You in the future I

Share the image you generated from the activity in which you aged yourself. This is a portrait of the potential version of yourself a few decades down the line!

Your name \*

+ Add

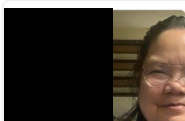
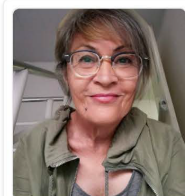
Upload an aged picture of yourself \*

Attach file

Drop files here



### Class responses



View larger version





# Tangible interfaces, embodied interaction, and wearable computing

- Schedule: Week 01 (Oct 10 - 16)
- Due date or event...: October 14, 2022
- Activity Type: Watch/listen/read and discuss
- # Minutes required ...: 20
- Corresponding C...: 1a (Explore), 2a (Research)
- Related to Table 2...: No access, No access
- 1 more property

Wearable computing is part of several different strands of research and design in technology. Chief among these strands is *tangible interfaces*:

Tangible interfaces are hybrid physical and computational systems that awaken existing and novel physical artifacts with the mediating power of computation. Tangible interfaces aim to engage the human senses, physical and cognitive capabilities, our cultural traditions and physical habitats, and beyond by interweaving the digital and physical worlds. (p. 34, Ullmer et al., 2022)

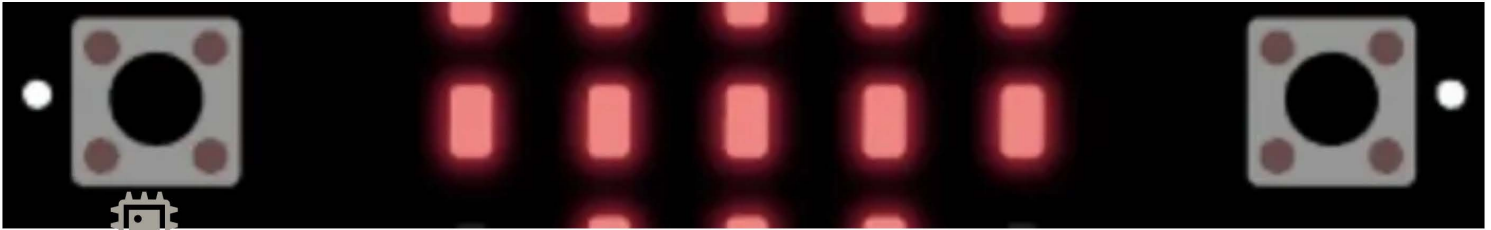
Tangible interfaces are designed to make use of the full ability of humans to sense, act on, and move through the world. This approach is generally known as *embodied interaction*:

Embodied interaction unifies tangible interfaces with social computing, engaging concepts of embodiment from philosophy and psychology with the world of HCI [human-computer interaction]. Embodied interaction stresses that products, objects, conversations, and actions unfold and are meaningful within our social and physical world... We perceive the world in terms of what we can do with it and how we can engage with it... By interaction with the world, we can access and express this meaning. The study of Tangible and Embodied Interaction ... spans philosophy, psychology, and theory; computing; electrical and mechanical engineering; making, design, art, culture; and well beyond. The creators of tangible interfaces include book binders, circuit benders, glass blowers, performing artists, weavers of code and fibers, and observers of humans in past, present, and future modes of engaging each other and our world. (p. 34, Ullmer et al., 2022)

I invite you to watch a series of video lectures by Jelle Van Dijk on the subject of embodied technologies. The first of those lectures is embedded below.








## Flashing Heart (micro:bit tutorial)

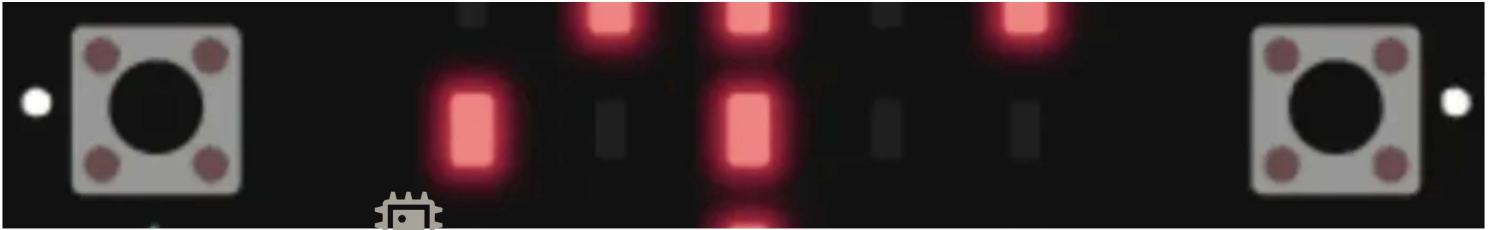
☰ Schedule	Week 01 (Oct 10 - 16)
📅 Due date or event...	October 14, 2022
☰ Activity Type	Hands-on activities (wearable tech-specific)
# Minutes required ...	45 
↗ Corresponding C...	 2a (Research)
	 3a (Develop)
↗ Related to Table 2...	 No access
	 No access
∨ 1 more property	

For this course, we will be using the BBC micro:bit to explore wearable computing. The micro:bit can be used to prototype all sorts of interactive systems, not just wearable systems. Using the micro:bit and other microcontrollers such as an Arduino microcontroller, you can create tools to help people keep active, help save sea creatures, or help plants grow. For the purposes of this course and to help limit our exploration, we will focus mostly on using it to create wearable systems that facilitate tangible and embodied interactions.

The micro:bit can be programmed in a number of different ways, the most user-friendly of which is through the use of code blocks. To learn how to use the micro:bit, we will be start by relying on tutorials published online such as this series of tutorials using Microsoft MakeCode. However, as you get more advanced in your understanding of microcontroller programming, you are welcome to use whatever coding environment you want.

The Flashing Heart tutorial is the first of these tutorials.

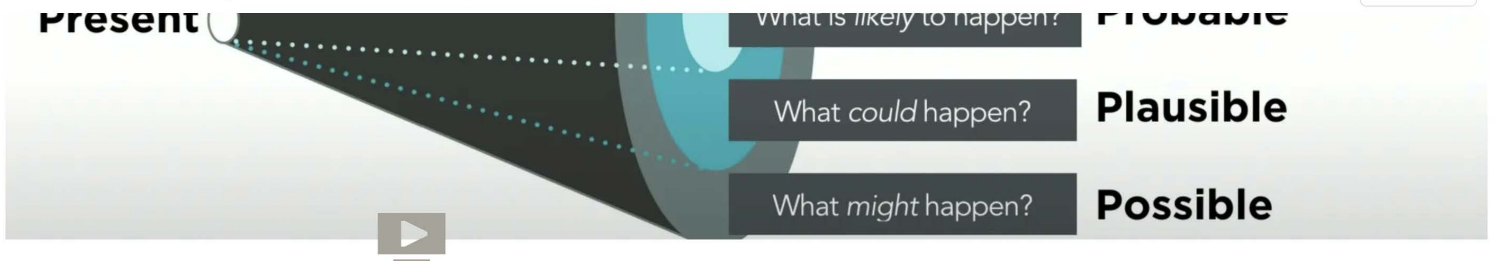
 Complete the Flashing Heart tutorial by following the directions on <https://makecode.microbit.org/projects/flashing-heart>



## Name Tag (micro:bit tutorial)

- ☰ Schedule Week 01 (Oct 10 - 16)
- 📅 Due date or event... October 14, 2022
- ☰ Activity Type Hands-on activities (wearable tech-specific)
- # Minutes required ... 20 
- Corresponding C...
  - 2a (Research)
  - 3a (Develop)
- ∨ 2 more properties

The [Name Tag tutorial](#) is the next tutorial that you should do to help you get familiarized with the micro:bit. Although it may not be very clear to you right now how this helps you with creating wearable technology, understanding the basics of programming the micro:bit will help prepare you with doing more complex projects!

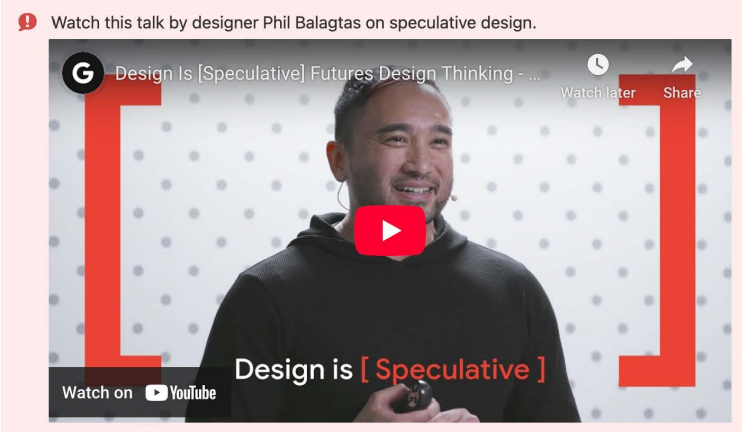


## Introducing Speculative Design

☰ Schedule	Week 01 (Oct 10 - 16)
📅 Due date or event...	October 15, 2022
☰ Activity Type	Watch/listen/read and discuss
# Minutes required ...	51
➤ Corresponding C...	2a (Research)
∨ 1 more property	

The basis for this course is a kind of design practice that is often referred to as *speculative design*. In this talk at Google Headquarters, designer Phil Balagtas (who is probably Filipino-American, I think!) introduces you to important concepts in speculative design. Pay particular attention to the following:

- the description of the talk, which I've reprinted after the video
- the *cone of possibilities*
- the works of Dunne and Raby
- examples that you find particularly intriguing or engaging



💡 The description from the original YouTube video

Speculative Design is an approach that considers alternate futures for technology and society. Through prototyping and/or defining scenarios, important discussions about ethics or the impact of design on the environment and culture can be brought to the forefront of the design process. Sometimes considered alarmist and sensational, it's still a powerful tool for design.

Companies are applying this approach to business strategies or articulating visions for emerging technologies. They are speculating on everything from the future of their products to eliciting communities for input to developing new services. Speculative Design's potential for application is so diverse that it can be used as a lens to consider a more holistic approach to problems and uncover new questions about the future that we may have never asked.

Phil shares several projects from Apple's early vision of the iPad to how governments are using it to design new services today. He also covers some basic framework for how to begin looking at the future and consider all the potential factors and environments that could influence your products or services.





# Week 2: Wearables in the near future: Physical computing and critical fashion

- ▼ Contents
  - 📄 Introduction and welcome
  - 📄 Preparation before the course starts
  - 📄 Assessment guide
- ▼ Weekly activities
  - 📄 Week 1: Imagining Futures
  - 📄 Week 2: Wearables in the near future: Physical computing and critical fashion
  - 📄 Week 3: Wearables in the far future: Humanity in outer space
  - 📄 Week 4: Engaging with deep time
  - 📄 Week 5: Speculative imagination and forecasting
  - 📄 Week 6: Putting it together (part 1)
  - 📄 Week 7: Putting it together (part 2)
  - 📄 Week 8: Presenting and communicating speculative ideas

This week, you will watch two talks, one of which is live, and to which you should have received a calendar invite. This is the talk by the Emerging Futurists-in-Residence about their residency so far. You will also complete a few more micro:bit tutorials. The week will end in a synchronous workshop with Belgian etextiles and physical computing expert Ann Peeters from the SEADS network. This workshop was specially designed for you, so be sure not to miss it!

### Activities

#### ▼ Week 02 (Oct 17 - 23) 6




**Imagining yourself in the future, part 2: Photograph a wearable object**

October 17, 2022  
30



**Island Punk**

October 18, 2022  
60



**Dice (micro:bit tutorial)**

October 19, 2022  
30



**Clap Lights (micro:bit tutorial)**

October 20, 2022  
30



**The Terno Project: 2022 Resident Emerging Futurists' talk**

October 21, 2022  
134



**Speculative design and wearable tech workshop with Ann Peeters**

October 22, 2022 4:00 PM → 7:00 PM  
270

▼ 13 hidden groups




## Imagining yourself in the future, part 2: Photograph a wearable object

☰ Schedule Week 02 (Oct 17 - 23)

📅 Due date or event... October 17, 2022

☰ Activity Type Hands-on activities (general)

# Minutes required ... 30 

🔗 Corresponding C... 
 2b (Analyze)  
 2a (Research)  
 3b (Shape)

∨ 1 more property

1. Take a photo of an object that you wear that definitely will *need* to change in the next 20 years. (And just to clarify, I mean “kailangang magbago ng anyo”, not “kailangang mong baguhin o palitan”). It could be an accessory, clothing, footwear, jewelry... anything that is typically kept close to the body because it is worn.
2. Think of the following questions:
  - a. **Who** uses this object? Can you imagine how you yourself might wear this thing differently in 20 years' time?
  - b. **Why** does this object need to change in 20 years' time? What is different about the world and/or yourself that would force a modification of this object?
  - c. **How** might the object be altered so that it is more relevant 20 years down the road? The changes that you see don't necessarily have to be digital or technological in nature (although they might).
3. Share your object and your responses to these questions using [this Airtable form](#) (also embedded below). Make sure to include your name next to the object. You can see in view-only mode the board below.

🚨 Share your object and your responses to these questions using [this Airtable form](#)

### Photograph a wearable object

See <https://airtable.com/shreEwnmjk8Q4Hsxd> for the list of objects already submitted

Name of wearable object \*

e.g., "rings"

Other than yourself, who uses this object? Can you imagine how you yourself might wear this thing differently in 20 years' time?

\*

Why does this object need to change in 20 years' time? What is different about the world and/or yourself that would force a modification of this object?

\*

How might the object be altered so that it is more relevant 20 years down the road? The changes that you see don't necessarily have to be digital or technological in nature

### Class responses

Your name

Myles Lorraine Tuason

Notes

Hair Pins are mostly women use hair pins becaus...



2022-11-20: Nipple Tapes (by Vernice B...

Your name

Vernice Bethel C. Gica

Notes

Nipple tapes are mostly used by women. I imagin...



2022-11-07: eyeglasses (by Laryze Loz...

Your name

Laryze Lozano

Notes

Usually, it is worn by those with vision impairmen...





## Island Punk

☰ Schedule **Week 02 (Oct 17 - 23)**

📅 Due date or event... **October 18, 2022**

☰ Activity Type **Watch/listen/read and discuss**

# Minutes required ... **60**

➤ Corresponding C... **2a (Research)**

∨ 1 more property

🗨️ Watch this recording of a talk given by the science fiction writer Jake Ramos (who is currently doing his Master's in Creative Writing at UP Diliman) about his notion of island punk. The talk was delivered during a SEADS Network meeting in 2022. But before you watch the talk, consider this question: what do you think Jake Ramos means when he talks about island punk?



After watching his talk, ask yourself:

- How was your initial hunch different from Jake's concept of island punk?
- To what extent the Jake Ramos' notion of island punk influence how you imagine
  - ... science fiction?
  - ... what art, technology, or design might look like in the Philippines 20 years from now?
- Look up **Afrofuturism**. To what extent do you think island punk is similar to Afrofuturism?

It's important for you to watch this talk before the first of the **Speculative design and wearable tech workshop with Ann Peeters** with Ann Peeters, so make sure you spend some time digesting this talk!



## Dice (micro:bit tutorial)

- ☰ Schedule Week 02 (Oct 17 - 23)
- 📅 Due date or event... October 19, 2022
- ☰ Activity Type Hands-on activities (wearable tech-specific)
- # Minutes required ... 30
- 🔗 Corresponding C...
  - 📄 2a (Research)
  - 📄 3a (Develop)
- ∨ 1 more property

Continuing with your series of introductory micro:bit tutorials, the [Dice tutorial](#) will introduce you to a randomizing function in block coding. It will also be the first tutorial that shows you how input—in this case, movement—can be used to trigger a response from the micro:bit.



## Clap Lights (micro:bit tutorial)

- ☰ Schedule Week 02 (Oct 17 - 23)
- 📅 Due date or event... October 20, 2022
- ☰ Activity Type Hands-on activities (wearable tech-specific)
- # Minutes required ... 30
- 🔗 Corresponding C...
  - 2a (Research)
  - 3a (Develop)
- ∨ 1 more property

The [Clap Lights](#) tutorial illustrates how the micro:bit can be used to react to sound! After completing this tutorial, you will have used the micro:bit to react to two kinds of input: movement and sound. The micro:bit has quite a number of sensors and can also be used to detect changes in light, temperature, and compass orientation, as well as touch.

FUT  
EDWARD REYE



# The Terno Project: 2022 Resident Emerging Futurists' talk

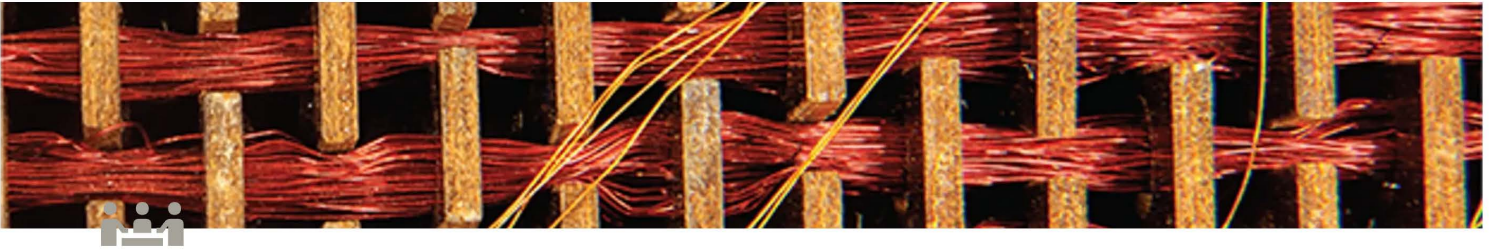
- Schedule: Week 02 (Oct 17 - 23)
- Due date or event...: October 21, 2022
- Activity Type: Synchronous interaction
- # Minutes required ...: 134
- Corresponding C...: 1a (Explore), 2a (Research)
- 1 more property

The Emerging Futurist Residency is a research and creative program hosted at the Bukas Space by UPOU and supported by Space Ecologies Art and Design. This hybrid virtual/in-person residency focuses on supporting and nurturing exploration of multidisciplinary teams of artists, scientists, designers, engineers, and activists in futures thinking and futures literacy. The residency aims to deconstruct dominant paradigms about the future and develops alternative models through a combination of critical inquiry and hands-on experimentation.

This week, you will watch the talk given by the inaugural cohort of emerging futurists. During the residency, the trio will explore individually and collectively various aspects of the Terno, arguably the Philippines' most iconic national dress. The residents will be exploring the use of wearable technologies and co-creative design methodologies, they will deconstruct and reimagine the Terno's materiality, sociocultural function, and sartorial production, experimenting on how a Terno might look, move, and come to be in the near future, with the hopes of subverting its long-held association with a select few.

The talk ~~will happen~~ happened on October 21. You can view the recording of the talk on this page. You will be asked to reflect on the talk by posting your thoughts in a Miro board.





# Speculative design and wearable tech workshop with Ann Peeters

☰ Schedule Week 02 (Oct 17 - 23)

📅 Due date or event... October 22, 2022 4:00 PM → 7:00 PM

☰ Activity Type Synchronous interaction Hands-on activities (general)

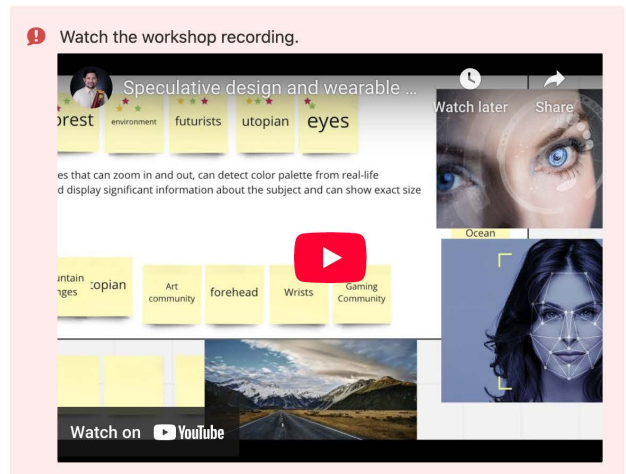
# Minutes required ... 270 🕒

📌 Corresponding C... 📌 1b (Organize)  
📌 3a (Develop)  
📌 3b (Shape)  
📌 2a (Research)  
📌 2c (Describe)

📄 1 more property

You will be capping the week with a workshop by Ann Peeters. (You should have received a calendar invite for the workshop.)

Ann Peeters' workshop has finished, but you can view and follow along the workshop recording. Ann has a background in performance arts and has worked in the Brussels social sector, focusing on playful and engaging language learning techniques, as well as digital inclusion and social innovation. Until 2018, she coordinated Fablab and Medialab Brussels. Her enthusiasm inspires (young) innovators to explore new technologies and take on (social) challenges, preferably through a co-creation approach.



Ann has graciously provided the slides from her presentation.

onlineresources.gitlab.io  
<https://onlineresources.gitlab.io/WearablesHackathon/Slides/>

You can also view and use the Miro board for the workshop, which is also embedded here.

Hackathon Wearables  
Modified 3 years ago

## Joining the workshop

You can either join from wherever you are, or we can meet at the Bukas Lab at UPOU's Diliman office and we can connect together from there. The advantages of doing it from Bukas Lab: 1) You can share equipment with classmates if you don't have a complete set; 2) You get to see your classmates in person; 3) You can participate in the optional F2F social event after. (In fact, I suggest that every time we have a synchronous workshop, let's schedule a F2F social event after.)

You can only follow along the workshop recording.

For the workshop, please:

- [Island Punk](#) and watch the video [Introducing Speculative Design](#) in advance.
- Do as many of the micro:bit tutorials as possible:
  - [Flashing Heart](#) (micro:bit tutorial)
  - [Name Tag](#) (micro:bit tutorial)
  - [Dice](#) (micro:bit tutorial)
  - [Clap Lights](#) (micro:bit tutorial)
- Be prepared with all the prototyping equipment that you already have. (Don't worry if you don't have a complete set yet.)
- Turn on your camera as a courtesy to your classmates and to the facilitator, who is taking time out of her busy schedule to design and run this workshop for you!



## Week 3: Wearables in the far future: Humanity in outer space

▼ Contents

- 📄 Introduction and welcome
- 📄 Preparation before the course starts
- 📄 Assessment guide









▼ Weekly activities

- 📄 Week 1: Imagining Futures
- 📄 Week 2: Wearables in the near future: Physical computing and critical fashion
- 📄 Week 3: Wearables in the far future: Humanity in outer space
- 📄 Week 4: Engaging with deep time
- 📄 Week 5: Speculative imagination and forecasting
- 📄 Week 6: Putting it together (part 1)
- 📄 Week 7: Putting it together (part 2)
- 📄 Week 8: Presenting and communicating speculative ideas

You'll start the week by wrapping up some of the unfinished work we did from last week's workshop. After that, we'll be touching on an aspect of the future—the future of humanity in outer space. While it is unlikely (though not impossible) that you yourself will be living on another planet or in an intergenerational starship, one of your descendants just might. We conclude the week by participating in a synchronous workshop by members of the Meta-Futurism Lab, which involves a science fiction-based storyline set in the far future, in a remote (but very real) exoplanetary system.

🗒️ Activities

▼ Week 03 (Oct 24 - 30) 8

 <p>📄 Do the Step Counter tutorial (micro:bit)</p> <p>October 24, 2022 20</p>	 <p>📄 Prototype a wearable idea using the micro:bit</p> <p>October 24, 2022 30</p>	 <p>👥 Treasure hunt 1: Wearables and textile swatches</p> <p>October 25, 2022 90</p>	 <p>📄 Underwear in outer space</p> <p>October 26, 2022 10</p>
 <p>📄 Indigenous perspectives on space exploration</p> <p>October 27, 2022 45</p>	 <p>📄 Science fiction and the future</p> <p>October 28, 2022 30</p>	 <p>📄 The MFL workshop storyline</p> <p>October 28, 2022 45</p>	 <p>👥 Meta-Futurism Lab workshop (1 of 2)</p> <p>October 29, 2022 4:00 PM → 6:00 PM 120</p>

▼ 13 hidden groups



## Do the Step Counter tutorial (micro:bit)

- ☰ Schedule Week 03 (Oct 24 - 30)
- 📅 Due date or event... October 24, 2022
- ☰ Activity Type Hands-on activities (wearable tech-specific)
- # Minutes required ... 20
- Corresponding C...
  - 📄 2a (Research)
  - 📄 3a (Develop)
- ∨ 1 more property

Do the [step counter tutorial](#) to learn how to use variables and see another use of the motion sensor on the micro:bit.



# Prototype a wearable idea using the micro:bit

- Schedule: Week 03 (Oct 24 - 30)
- Due date or event...: October 24, 2022
- Activity Type: Hands-on activities (wearable tech-specific)
- Minutes required ...: 30
- Corresponding C...: 2a (Research)
- 1 more property

Ann gave you homework to do, which is to take any of the ideas you had come up with and very very very roughly prototype it but only purely based on what the micro:bit has to offer. For this activity, pick any one of the wearable ideas that was discussed in the workshop and documented in the workshop Miro board.

- Given that example you chose, in the ideal scenario, what is the inputs (or what are the inputs) of this tech-enhanced dress? What are the outputs?
- Using only what the micro:bit can offer, what can you use as inputs? What about the outputs?
- How would you very very very roughly implement your answer from your previous answer in actual micro:bit code? Implement it (using Makecode or whatever programming environment you want).

Share your answers (including a link to your Makecode implementation) with the class in the appropriate Google Classroom activity!

## Example

During the workshop, we briefly discussed the example of the "wearable holographic mood dress" from the Miro board. Answer the following questions for yourself, and then expand the section below to see my answers.

- In the *ideal scenario*, what is/are the input(s) of this tech-enhanced dress? What is/are the output(s)?
- Using *only what the micro:bit can offer on its own*, what can function as input(s)? What about the output(s)?
- How would you very very very roughly implement your answer from your previous answer in actual micro:bit code? Implement it (using Makecode or whatever programming environment you want).



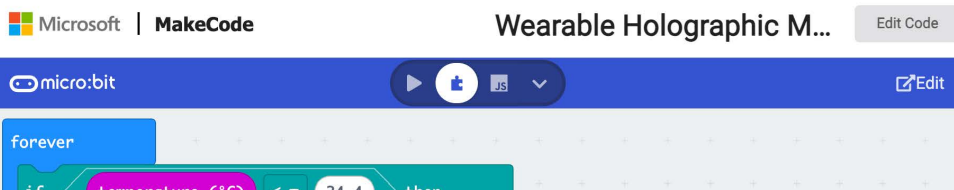
Wearable holographic dress the emits sound or music waves as a musician performs. The suit also reflects the mood of the wearer, dark colors for gloomy, etc. This will create sustainable clothing as it eliminates the need for fast fashion trends. We can take sound input to show dynamics through LED.

Give yourself 20 minutes to answer these three questions, then compare it against my answers below.

## My answers

	Ideal	Using only what the micro:bit can offer
Inputs	"mood of the wearer"	For the purposes of the exercise, let's make the assumption that your body <b>temperature</b> can be used to estimate your mood. The higher the body temperature, the more excited or agitated you are. The lower the body temperature, the more calm or bored you are. Since the micro:bit doesn't really get too hot, if you placed the micro:bit right against your skin, you could speculate that maybe the micro:bit can pick up your body temperature! (In reality it's not quite so straightforward but we can make this assumption this is for the purposes of the exercise.)  In a more advanced version of this answer, you could also use the <b>light sensor</b> of the micro:bit to function as a very rudimentary <b>heart rate monitor</b> , since you could conceivably infer mood based on heart rate variability. You could even combine these two pieces of data (body temperature + heart rate) to get a more accurate approximation of mood.
Outputs	"music waves"  colors, e.g., "dark colors for gloomy"	We can produce very simple <b>melodies played over the micro:bit's speaker</b> .  We can't really do "dark" or "bright" colors, but we could do <b>fewer or more LED lights</b> .

So here's how I would implement this as a simple program. I've also embedded it below.



The image shows a Scratch script on a grid background. It consists of several blocks:

- A blue "show leds" block with a 4x4 grid of 16 blue squares and 4 white squares at the bottom.
- A red "play melody" block with a musical note icon, a color bar, and "at tempo 166 (bpm)".
- A green "else if" block with a pink "temperature (°C)" input field, a "≤" operator, and a "34.8" value, followed by a "then" block.
- Another blue "show leds" block, identical to the first one.
- A red "play melody" block with a musical note icon, a color bar, and "at tempo 174 (bpm)".
- A green "else if" block with a pink "temperature (°C)" input field, a "≤" operator, and a "35.2" value, followed by a "then" block.
- A partially visible blue "show leds" block at the bottom.

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# Treasure hunt 1: Wearables and etextile swatches

☰ Schedule Week 03 (Oct 24 - 30)

📅 Due date or event... October 25, 2022

☰ Activity Type Treasure hunts

# Minutes required ... 90

↗ Corresponding C... 1b (Organize)

2a (Research)

∨ 1 more property

Taking inspiration from the workshop with Ann last week and all the activities we have covered so far, I would like you to browse through the following resources and pick **2 to 4** do-it-yourself projects that interest you from the following list:

- <https://www.kobakant.at/DIY/> (This is the website that Ann had flashed onscreen during her workshop.)
- <https://class.textile-academy.org/projects/> (A series of courses focused on wearables and biology-inspired fashion.)
- <https://etextile-summercamp.org/swatch-exchange/> (The first group of people who were doing etextile exchange.)
- <https://learn.adafruit.com/category/wearables> (This website showcases projects created using microcontrollers different from the micro:bit, but you can still derive inspiration from the examples.)
- <https://www.instructables.com/circuits/wearables/projects/> (Each project has detailed instructions on how to implement it.)

You don't have to actually implement your choices just now. All you need to do at this point is make a selection of etextile swatches or fullblown wearable tech projects that really interest you. Perhaps some of your choices feel like they might be leading you to a final project. Or perhaps they encapsulate some of the ideas you proposed during the wearable workshop last week. Or maybe they have something to do with this week's theme of humans in space!

Share your picks with the class by posting in this [Airtable form](#) (also embedded below).

## Treasure Hunt 1

What existing wearables and etextile swatch projects interest you? Choose 2-4. Submit this form once for each project (e.g., if you choose 3 projects, submit this form three times)

Your name \*

Add

Name of the project you want to replicate \*

If you couldn't choose just one, submit this form multiple times.

URL of the project \*

A visual of the project \*

Include an image of the project you want to replicate. This can be the image taken from the website of the project.

Attach file

Drop files here

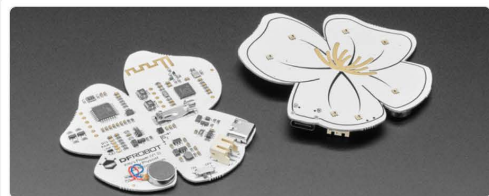
Why did you choose this project? \*

## Class responses



2022-11-03: Health Tracker (by Sapphire Marilag M. Dolorzo)

URL of the project  
<https://www.instructables.com/Dog-Health-Tracking-Device-the-DogBit/>



2022-11-03: Bluetooth Brooch (by Sapphire Marilag M. Dul...)

URL of the project  
<https://www.instructables.com/Dog-Health-Tracking-Device-the-DogBit/>




2022-11-03: HYPE (by Joshua Albert C. Dema-ala)

URL of the project  
<https://www.instructables.com/HYPE-Hear-Your-Personal-Emotion/>





## Underwear in outer space

☰ Schedule	Week 03 (Oct 24 - 30)
📅 Due date or event...	October 26, 2022
☰ Activity Type	Watch/listen/read and discuss
# Minutes required ...	10 
🔗 Corresponding C...	2a (Research)
∨ 1 more property	

Did you know that astronaut Neil Armstrong's spacesuit was designed by a women's bra manufacturer?


If you would like to know why and to learn more about the design process that led to this outcome, read the book *Spacesuit: Fashioning Apollo* or watch the author's talk at Google about this (embedded below). If you do read the book or watch the video, note the following:

- the roles that politics and gender relations played in the history of the spacesuit's design and production;
- the design considerations that needed be taken into account when designing for the human body when part of a harsh environment like that present in outer space;
- the difference between technologies built on hard, inflexible materials vs those that use soft, flexible materials.






## Indigenous perspectives on space exploration

- ☰ Schedule Week 03 (Oct 24 - 30)
- 📅 Due date or event... October 27, 2022
- ☰ Activity Type Watch/listen/read and discuss
- # Minutes required ... 45 
- ↗ Corresponding C... 2a (Research)
- ∨ 1 more property

In this activity, you are invited to listen to an [interview](#) with Dawn Marsden, author of *Starship Citizens: Indigenous Principles for 100 Year Interstellar Voyages*. Here's the description of the interview:

Starship Citizens: Indigenous Principles for 100 Year Interstellar Voyages... explores how Indigenous principles can allow for more sustainable futures and equitable sharing of resources, as well as, support the philosophical, ethical and social backdrop for more meaningful space exploration.

Dawn's work has a continuing theme, of applying Indigenous knowledge to environmental sustainability, public health & wellbeing, education, research and space sciences. Dawn has degrees and certificates in environmental health, anthropology, environmental science, education, and nutritional therapy. She is currently focused on applied astronautics and counseling psychology. Dawn's perspectives and worldview have been influenced by her Anishinaabe and French ancestry, her off-reserve locations, as well as her connections to the First Nation (Mississaugas of Scugog Island). Dawn's book, *Starship Citizens: Indigenous Principles for 100 Year Interstellar Voyages*, reflects on Indigenous principles for living good lives within communities and draws upon a lifetime of stories shared with her by Indigenous Elders and knowledge keepers across Canada.


 [Listen to this interview with Dawn Marsden.](#)



How do this podcast make you think about Filipino perspectives on humanity's project of venturing into and living in outer space?



## Science fiction and the future

☰ Schedule	Week 03 (Oct 24 - 30)
📅 Due date or event...	October 28, 2022
☰ Activity Type	Watch/listen/read and discuss
# Minutes required ...	30 
🔗 Corresponding C...	2a (Research)
∨ 1 more property	

The workshop later this week is driven by a science fiction storyline that was created by the Meta-Futurism Lab members. But you might ask, why does science fiction matter if it's only make-believe?


Below is a TED Talk that Lucky found inspirational and relevant to this course, particularly because it answers precisely that question. As you watch this video, consider the following:

- What does science fiction have to do with futures thinking?
- What examples did the speaker give in which science fiction doesn't accurately predict certain aspects of the future? Why does science fiction matter even when it's not always accurate?





## The MFL workshop storyline

☰ Schedule	Week 03 (Oct 24 - 30)
📅 Due date or event...	October 28, 2022
☰ Activity Type	Watch/listen/read and discuss
# Minutes required ...	45 
🔗 Corresponding C...	🔗 1a (Explore)
✓ 1 more property	

For the Meta-Futurism Workshop with Mona Nasser and the Meta-Futurism Lab members on Saturday, you will be working with a specific science fiction storyline developed specially for the Wearable Futures Hackathon student participants. How exactly you will be working with story is left as a surprise, but please take at least about half an hour to familiarize yourself with the storyline.

🗨️ The story itself is intellectual property of the Meta-Futurism Lab, who is kindly allowing it to be used for this workshop. You will be given the download link after you fill in a [nondisclosure agreement](#) (embedded below).

If you agree to these conditions, fill in this form and click submit.

Your name \*

+ Add

Your student number \*

Your UP-based email address \*

 Airtable




## Meta-Futurism Lab workshop (1 of 2)

☰ Schedule Week 03 (Oct 24 - 30)

📅 Due date or event... October 29, 2022 4:00 PM → 6:00 PM

☰ Activity Type Synchronous interaction Hands-on activities (general)

# Minutes required ... 120 

↗ Corresponding C... 1b (Organize)

1a (Explore)

1c (Choose)

∨ 1 more property

! To get the Zoom link and participate in the recording of the MFL workshop, first answer this [teensy weensy survey](#). After you submit your answer, the [Zoom details](#) link where you can replay the workshop will be shown to you.

### MFL W1 Prework

You were asked to spend 30 minutes reading the storyline for the workshop on Saturday. What was surprising for you in the story?

Your name \*

+ Add



During the workshop, participants worked in two groups of 4. If you are catching up on the workshop, you can work either on your own or you can self-organize (using Discord) into small groups.

! After participating in (or watching the recording of) the workshop, prepare for the second workshop on November 8. Fill in the form below before the second MFL workshop on November 8. You will be reminded again to fill in this form closer to the date.

### MFL W1 Homework

You must have participated in the first MFL Workshop or watched and followed along with the recording of the workshop to respond to this activity.

Whose work is this? \*

If you worked alone, then select only your name here. If you worked in a group, select all members of your group here. One submission only per group; no need to submit if someone else from your group has made a submission.

+ Add

What is ONE challenge or problem in the story that you want to address? \*



### Class responses so far

the story. The creativity of using technology in an out-of-this-world imagination also surprised me, and how different parts came together with the use of someone's mind that can produce a sci-fi experience.

2022-10-29 (MFL W1 Prework): Michelle Lado

Identify something that surprised you in the story

That it is possible for people or a community (Kilpaki) to prioritise quality of life over prolonging life. Many people these day are more concerned of achieving the latter.

2022-10-29 (MFL W1 Prework): Pauliana Jamie R. Nicolas

Identify something that surprised you in the story

To be honest, I wish I was joking. Still, I thought the flower she was smelling was like a weird type of drug knowing how obsessed the character was from their sleep to drawing them and all, also going there all the time because it made them feel "more happy than usual" which is wh...

2022-10-29 (MFL W1 Prework): Marciano C. Virola III

Identify something that surprised you in the story

Conversations using the sense of smell sound sfascinating. Hopefully, in the near future, we'll have the technology for it. I hope to experience it someday.

2022-10-29 (MFL W1 Prework): Rel Daryle Dane R. Valle

Identify something that surprised you in the story

Many things in the story were surprising for me since they are very far from reality and are part of a unique imagination of another world. Perhaps, I could think of the top two for me which first, is the virus that spreads a language disease within a planetary system. I never encountered a ...

2022-11-04 (MFL W1 Prework): Wrynz Dale Sumande

Identify something that surprised you in the story

The idea that struck me most throughout the story was how interspecies relationship is observed, promoted and cultivated - each approach unique to every planet. That humans in each planet have found ways to coexist



 View larger version



# Week 4: Engaging with deep time

- ▼ Contents
  - 📄 Introduction and welcome
  - 📄 Preparation before the course starts
  - 📄 Assessment guide
- ▼ Weekly activities
  - 📄 Week 1: Imagining Futures
  - 📄 Week 2: Wearables in the near future: Physical computing and critical fashion
  - 📄 Week 3: Wearables in the far future: Humanity in outer space
  - 📄 Week 4: Engaging with deep time
  - 📄 Week 5: Speculative imagination and forecasting
  - 📄 Week 6: Putting it together (part 1)
  - 📄 Week 7: Putting it together (part 2)
  - 📄 Week 8: Presenting and communicating speculative ideas

Last week, you were asked to engage with a speculative scenario set in the far future. You were left with some very rough prototyping homework to do, which you will have learned about in the [Meta-Futurism Lab workshop \(1 of 2\)](#) from last week. You will be reminded of that homework next week.


In the meantime, you get to start using your hands again because we will return to the topic of wearables and physical computing in two activities this week.

- 🛠️ Using Micro:bit simulators on Tinkercad + incorporating physical components
- 🗺️ Treasure hunt 2: Replicating an existing project


This week, we will push our conceptualization of the future a bit further when we reflect on the subject of deep time. This course is meant in part to be a provocation for us all to reflect a bit more critically and creatively about the future and how this relates to the past. As part of this provocation, I invite you to engage in the topic of deep time for this week. (We will return to more manageable time scales next week!)

### 📅 Activities

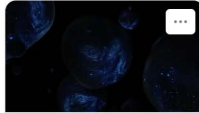
▼ Week 04 (Oct 31 - Nov 6) 5



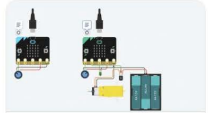
📄 What is deep time?  
November 2, 2022  
15




📄 Where do humans fit in the big story of deep time?  
November 2, 2022  
0



📄 Experiencing deep time through art and media  
November 3, 2022  
30



🛠️ Using Micro:bit simulators on Tinkercad + incorporating physical components  
November 3, 2022  
90



🗺️ Treasure hunt 2: Replicating an existing project  
November 4, 2022  
45

▼ 13 hidden groups



## What is deep time?

☰ Schedule

Week 04 (Oct 31 - Nov 6)

📅 Due date or event...

November 2, 2022

☰ Activity Type

Watch/listen/read and discuss

# Minutes required ...

15 

↗ Corresponding C...

📌 2a (Research)

∨ 1 more property

Deep time refers to geologic time, which involves millions or billions of years. To learn more, read [this article from Smithsonian Magazine](#) about an art exhibit about deep time. Note the discussion of the history of the term "deep time"

Note as well the brief mention of another term you might have heard from elsewhere, the proposed geological era of the *Anthropocene*, which is summarized briefly in [this video](#) (also from Smithsonian Magazine).

### What Does "Deep Time" Mean to You?

Earth is roughly 4.5 billion years old—a number that is hard for humans to grasp. "For someone whose life <https://www.smithsonianmag.com/science-nature/what-...>



### What Is the Anthropocene?

Discover why scientists think we are in a new geologic age and what it means for our future. <https://www.smithsonianmag.com/videos/what-is-the-a...>





# Where do humans fit in the big story of deep time?

- Schedule: Week 04 (Oct 31 - Nov 6)
- Due date or event...: November 2, 2022
- Activity Type: Watch/listen/read and discuss
- # Minutes required ...: 0
- Corresponding C...: 2a (Research)
- 1 more property

(This is an optional activity.) Deep time and its related subjects—such as “big history”—can be not only daunting to imagine; they can also make you question the significance that life has in the entire scheme of things. In contemplating deep time, it may even lead you down a path of nihilistic despair! In this optional activity, you will watch two fascinating talks that uses the scientific concepts to try and make sense of humanity’s role in the big story of deep time, the emergence of complex systems, and the role of entropy. The first of these videos is a TED talk by historian David Christian.



The second video is a far-ranging lecture at the Long Now Foundation given by physicist Sean Carroll.



After watching these videos, how you say humans fit in the context of big history and deep time?





# Experiencing deep time through art and media


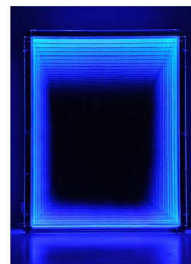
- Schedule: Week 04 (Oct 31 - Nov 6)
- Due date or event...: November 3, 2022
- Activity Type: Watch/listen/read and discuss
- # Minutes required ...: 30
- Corresponding C...: 2a (Research), 2b (Analyze)
- 1 more property

The ability to think about the future and to imagine different futures is a trait that is unique to intelligent animals. While certain animals (such as crows, dolphins, and octopuses) are able to plan and strategize for the future, no other animal other than humans can do so with in such remarkable breadth and depth. However, even our capacity to imagine and plan for the future is no match against the vastness of deep time. Might art, media, and technology play a role in addressing this shortcoming?

First, read this article from the Long Now Foundation about two apps that is used to help people relate to deep time better.

Then, review the article about the art exhibit on deep time mentioned in the activity. What is deep time? Make sure browse through all of the images in the slideshow embedded in that article.

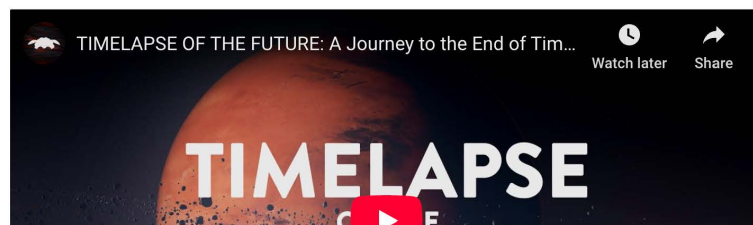
What Does "Deep Tim...  
 Earth is roughly 4.5 billion years old—a number that is  
<https://www.smithsonianm...>

Finally, watch the two videos on this page, one of which illustrates how the whale might have evolved from a terrestrial mammal based on a series of watercolor illustrations ...

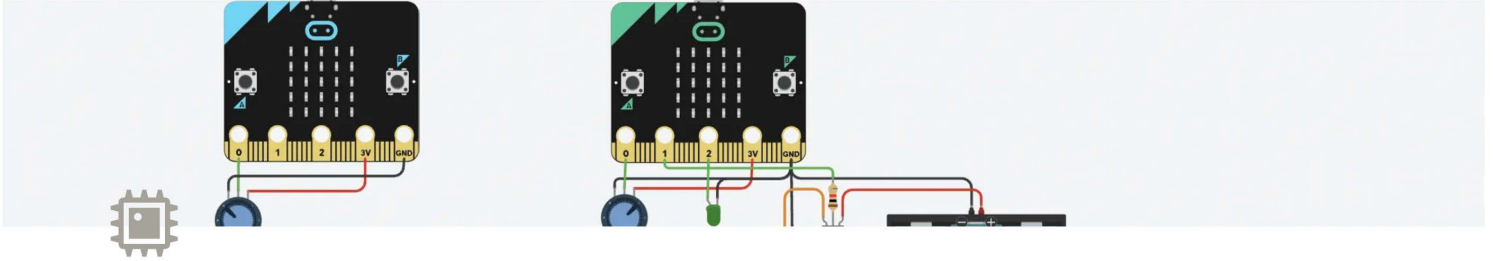


... and the other of which illustrates predicted milestones in the history of the cosmos based on different scientific theories. (For this video, I suggest you find a quiet time, sometime in the evening, when you are relaxed and your mind is open. Turn out the lights and settle into this 19-minute video.)





💡 Based on these materials, what role do you think can art and media art play in helping people develop a better understanding of deep time? What specific creative or authoring strategies did you observe being used in the examples here?



# Using Micro:bit simulators on Tinkercad + incorporating physical components

Schedule Week 04 (Oct 31 - Nov 6) Week 07 (Nov 21 - 27)

Due date or event... November 3, 2022

Activity Type Hands-on activities (wearable tech-specific)

# Minutes required ... 90 

Corresponding C... 2a (Research)

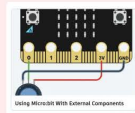
3a (Develop)

1 more property

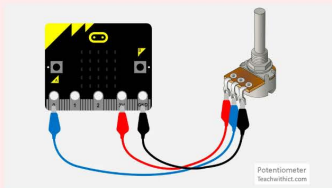
The following directions are from Ann Peeter's tutorial on [simulating the use of physical components with the Micro:bit](#), which was developed for our class. In these two tutorials, you will use another platform, Tinkercad. If you have the kit, try to do it physically with the live components as well.

## 1. Using Micro:bit With External Components

In this tutorial, you will learn how to use a potentiometer and a (small) motor, but it should give you some ideas on how to wire other things as well.

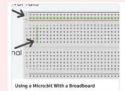


1. Make an account on [Tinkercad](#) (Autodesk).
2. Go to **Resources > Learning Center** and scroll to **Learn Circuits** and click **view all**.
3. Pick **Using Micro:bit With External Components**.
4. Follow the walkthrough.
5. If you have the kit, try to do it physically with the live components as well. You should have a potentiometer in your kit. You can use your crocodile clips to do this, as shown below. (The image is from another tutorial by [TeachWithICT.com](#).)



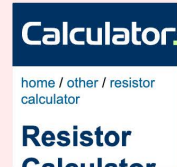
## 2. Using Micro:bit with a Breadboard

In this tutorial, you will review how a breadboard works and wire 1 to 3 LEDs to your Micro:bit.



1. Log in to [Tinkercad](#).
2. Go to **Resources > Learning Center** and scroll to **Learn Circuits** and click **view all**.
3. Pick **Using Micro:bit With a Breadboard**.
4. Follow the walkthrough.
5. If you have the kit, try to do it physically with the live components as well.

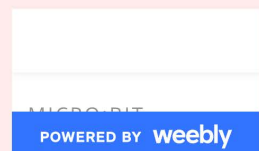
Note that if you do implement this using a real breadboard, you should include a resistor so that your LED doesn't burn out. (Your kit should have come with some resistors as well.) In the virtual prototyping environment, you use a 470 ohm ( $470 \Omega$ ) resistor, so you can use a resistor with around that value in the physical implementation as well. To figure out which of the resistors in your kit is around that value, you can use [resistor code calculators](#) like this one.



If you want to learn more about to compute the correct resistance to use in general, this [video](#) provides a good overview on how to select the correct resistor. You can watch up to 5:00 in the video for now; the rest isn't something you need to learn, at least for the purposes of this exercise.



You could also use this handy [resistor calculator](#) described in [this tutorial](#) to determine the resistance you need.







## Treasure hunt 2: Replicating an existing project

☰ Schedule Week 04 (Oct 31 - Nov 6)

📅 Due date or event... November 4, 2022

☰ Activity Type Treasure hunts







# Minutes required ... 45 

↗ Corresponding C... 1b (Organize)


2a (Research)


∨ 1 more property

Recall all the activities you have already accomplished, including the following:


-  Island Punk
- The  Speculative design and wearable tech workshop with Ann Peeters
- The  Meta-Futurism Lab workshop (1 of 2)
-  Imagining yourself in the future, part 1: Get acquainted with the older you
-  Imagining yourself in the future, part 2: Photograph a wearable object
- The  Treasure hunt 1: Wearables and etextile swatches
- All the hands-on micro:bit tutorials you've accomplished.

You've done more activities, of course, but these are some of the major ones.


 Keeping all of these activities in the back of your mind, browse through the following resources and pick one do-it-yourself project that you will **replicate**:

- SEADS COVID-19 Tech and then select the *Personal Protective Equipment* tag
-  Renz Reyes' terno sleeve pattern (recommended!)
- [Instructables.com > Craft > Embroidery](#)
- [Instructables.com > Craft > Jewelry](#)
- [Instructables.com > Craft > Knitting](#)
- [Instructables.com > Craft > Costumes and Cosplay](#)
- [Instructables.com > Craft > Sewing](#)

Whether it's a face mask, a purse, a cloak, a pendant, a shirt, a fake nose piercing, a belt, or something else altogether, your choice just needs to meet the following criteria:

- **Fun and interesting:** Your choice should really interest you, and you should have fun making this! Perhaps it feels like they it might lead you to your final project (even if you don't really quite have a clue yet what it is). Or perhaps it encapsulates some of the ideas you proposed during the wearable workshop last week. Or maybe they have something with themes we have explored, such as humans in space or  The Terno Project: 2022 Resident Emerging Futurists' talk!
- **Reasonably replicable:**
  - You could actually make that object within the span of 1 week. So make sure you don't pick something that it is too complex to make.
  - You should definitely be able replicate the project on your own or with the help of WFH classmates who have expressed their willingness to work with you. (You are welcome but not required to work in small groups on this activity.)
  - You could easily get all of the materials needed to make it. (Maybe the materials are lying around your home or office already, or maybe it's easy to purchase them.) For this activity, you will have to use your own funds to purchase equipment, so think about how you want to use your funds. Maybe working in a group is a good way to distribute costs if what you want to make is too costly to do on your own.
- **Tech-enhanceable:** Note that the examples in these resources are not enhanced with digital technology... but perhaps after they've been through your hands and your creative brain, they might! So you should see be able to envision an opportunity to augment or change some aspect of the existing project using the Micro:bit! Remember that the micro:bit doesn't actually have to be **on** the object you're making, especially if it's too small. For example, if you want to add some sensors or LEDs to a ring, you could create a wristband on which the micro:bit can be sewn on, and then have the wires run up your hand and finger to the ring.

Share your pick by filling in the form below. If you're having a lot of trouble deciding, you are welcome to submit up to three things, and then you can ask the class to help you decide which one to pick. You can also ask for help in Discord.

 As soon as you know which DIY project you're going to replicated, you can start making it! You'll show the class what you've created during our F2F session on Week 6, and you will get a reminder by Week 5 about this activity.

 Class responses so far



## Project Title

What existing DIY (low-tech or no-tech) wearable project or object do you want to replicate?

Your name(s) \*

You are welcome to work individually or in small groups, which you can organize by yourself.

+ Add

Name of the project you want to replicate \*

If you couldn't choose just one, submit this form multiple times.

 Airtable



2022-11-07: Face Touch Alar...

Why did you choose this?

Two of our members were interested in the necklace and the badge respectively. Since we are tackling future wearables, we want to heighte...



2022-11-12: Threadpaint Emb...

 [Download CSV](#) [View larger version](#)



# Week 5: Speculative imagination and forecasting

## ▼ Contents

- 📄 Introduction and welcome
- 📄 Preparation before the course starts
- 📄 Assessment guide

## ▼ Weekly activities

- 📄 Week 1: Imagining Futures
- 📄 Week 2: Wearables in the near future: Physical computing and critical fashion
- 📄 Week 3: Wearables in the far future: Humanity in outer space
- 📄 Week 4: Engaging with deep time
- 📄 Week 5: Speculative imagination and forecasting
- 📄 Week 6: Putting it together (part 1)
- 📄 Week 7: Putting it together (part 2)
- 📄 Week 8: Presenting and communicating speculative ideas

This week, we begin with a talk that touches on—and concludes last week’s conversation regarding—deep time. In this talk, philosopher Roman Krznaric suggests that thinking about deep time helps us to become better ancestors. We then conclude our MFL workshop from Week 3 with the second part.

We then scale back our view of the future from thousands of years into the future back into something within most of everyone’s lifetimes: the next 30 years. We use a combination of speculative, creative thinking with science-driven forecasts of the future to imagine different kinds of utopic, dystopic, and heterotopic scenarios.

The week concludes with a quick check-in to see how your Treasure hunt 2: Replicating an existing project efforts are coming along. Next week, we will see each other in person, and we can do a live show-and-tell of what you’ve been up to!

### 🗂️ Activities

#### ▼ Week 05 (Nov 7 - 13) 6



📄 Becoming a Time Rebel and a Good Ancestor

November 7, 2022

82



📄 The evolved continuation of the MFL workshop storyline

November 8, 2022

2



👥 Meta-Futurism Lab Workshop (2 of 2)

November 8, 2022 4:30 PM → 6:30 PM

120



📄 Utopia, Dystopia, and Heterotopia

November 9, 2022

20



📄 Imagining yourself in the future, part 3: PAGTANAW 2050 forecast

November 10, 2022

90



👥 Replication project check-in


November 11, 2022

5

▼ 13 hidden groups



## Becoming a Time Rebel and a Good Ancestor

☰ Schedule	Week 05 (Nov 7 - 13)
📅 Due date or event...	November 7, 2022
☰ Activity Type	Watch/listen/read and discuss
# Minutes required ...	82 
➤ Corresponding C...	2a (Research)
∨ 1 more property	


This week, you will once again engage in the MFL workshop, in which you will be asked to engage with a speculative scenario set in the far future on a human settlement in outer space.


You might be thinking to yourself, "Why should I care about people who live in the future whom I will never meet? There are so many problems that already confront the present, so what good will come out of worrying about the future thinking?"

To address this question before the second MFL workshop, watch this talk at the Long Now Foundation by the philosopher Roman Krznaric, who offers responses to these and similar questions.

Roman Krznaric

Human beings have an astonishing evolutionary gift: agile imaginations that can shift in an instant from

 <https://longnow.org/seminars/02020/oct/28/bec...>


 Based on what you've watched and everything you've done in the course so far, why should you care about future and those who live in it?



## The evolved continuation of the MFL workshop storyline

☰ Schedule	Week 05 (Nov 7 - 13)
📅 Due date or event...	November 8, 2022
☰ Activity Type	Watch/listen/read and discuss
# Minutes required ...	2 
➤ Corresponding C...	<ul style="list-style-type: none"><li>◆ 3c (Test)</li><li>■ 2b (Analyze)</li><li>■ 3b (Shape)</li><li>□ 3a (Develop)</li></ul>
∨ 1 more property	

As was mentioned during the workshop, your inputs during the workshop were used to extend the story that you had already read for the MFL workshop. If you're curious to see how the discussions from the last workshop created a new, evolved continuation of the story, fill in the form below to download the new content! Can you see how your workshop inputs inspired this new content?



### MFL Story Evolution NDA


This agreement is made and entered into by and between Meta-Futurism Lab and yourself for the purpose of receiving certain confidential information to participate in the workshop.

As part of your workshop, you will receive course materials including a science fiction story. All materials and verbal information need to be treated as confidential information. The participant agrees to not share or disclose any of the course information in writing or verbally with any party beyond the workshop.

If you have any enquiries or doubts about this - please contact Mona Nasser at [mona.nasser@plymouth.ac.uk](mailto:mona.nasser@plymouth.ac.uk).

This Agreement may not be modified except in written and signed by each party.

All notices, requests, or consents related to this Agreement





# Meta-Futurism Lab Workshop (2 of 2)

- Schedule: Week 05 (Nov 7 - 13)
- Due date or event...: November 8, 2022 4:30 PM → 6:30 PM
- Activity Type: Synchronous interaction
- Minutes required ...: 120
- Corresponding C...: 1b (Organize)
- 1 more property

In the first workshop, you were asked to pick one issue from the MFL workshop storyline and to develop some prototypes, proposals, blueprints, solutions, etc. that could address it. Use the form on this page to submit your answers to this homework but also to get the link to the Zoom meeting room for the second workshop.

Do the Workshop 1 homework and share your answers using this form. Open the form in a new window if you are having issues.

## MFL W1 Homework

You must have participated in the first MFL Workshop or watched and followed along with the recording of the workshop to respond to this activity.

### Whose work is this? \*

If you worked alone, then select only your name here. If you worked in a group, select all members of your group here. One submission only per group; no need to submit if someone else from your group has made a submission.

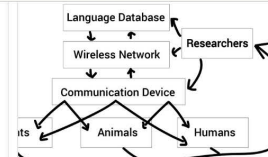
+ Add

### What is ONE challenge or problem in the story that you want to address? \*

This can be anything - a product that you think should be developed or modified, a social challenge to be managed, or an individual dilemma. This can be a challenge/problem that was mentioned in the storyline or a challenge/problem you want to address in the society that we depicted. You can refer to the Miro board from the workshop if you had used it: <https://miro.com/app/board/uxjVPlp9QHE=/>



## Workshop 1 Responses



### 2022-11-08 (MFL W1 Respons...

Identify an issue from the story  
It was evident in the interplanetary festival that there was a struggle for others to keep up with emerging multi-sensory communication methods. The ...

Your prototype  
Communication infrastructure that stores and translates languages to connect all species powered by sustainable energy...



### 2022-11-08 (MFL W1 Respons...

Identify an issue from the story  
Population and Birth Control

Your prototype  
It was mentioned that in Kilpaki, they strive for a short but quality life unlike in the other two planets and that there is an agreement on the number of childre...



### 2022-11-08 (MFL W1 Respons...

Identify an issue from the story  
"A Trip to the Sun"  
How do they manage their trash?  
...

Your prototype  
After some meetings and evaluations, they soon learned and realized that it was due to their disposal of waste through the sun. So, they immediately ...



### 2022-11-08 (MFL W1 Respons...

Identify an issue from the story  
A possible challenge that the planets may face is colonization. With the absence of any communication between planets, it is not far off when a planet ...

Your prototype  
SUMMIT  
The solution we have is to develop a summit similar to ASEAN and UN's yearly meetings regarding the quality o...

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ERR\_BLOCKED\_BY\_RESPONSE



MTBD.COM IS BLOCKED





MIRO.COM IS SECURED



miro.com refused to connect.



## Utopia, Dystopia, and Heterotopia

☰ Schedule Week 05 (Nov 7 - 13)

📅 Due date or event... November 9, 2022

☰ Activity Type Watch/listen/read and discuss

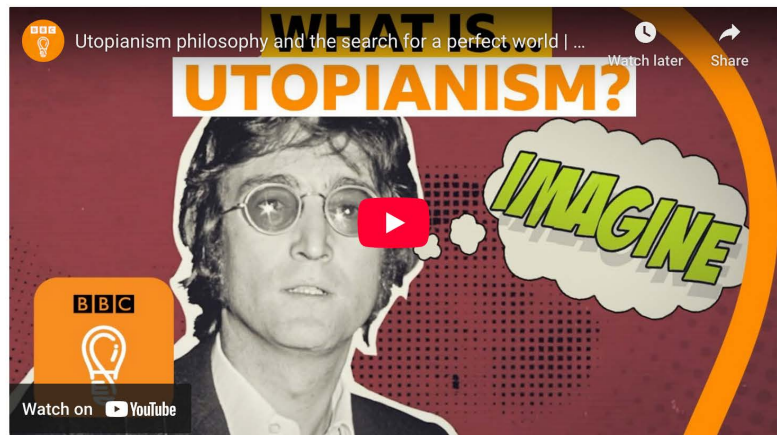
# Minutes required ... 20

➤ Corresponding C... ■ 3b (Shape)

∨ 1 more property

During the Speculative design and wearable tech workshop with Ann Peeters, you were introduced to the notions of *utopia*, *dystopia*, and *heterotopia*. It's worth revisiting these concepts a bit more before we continue with the course.

**Utopia** is used to refer to an ideal state of affairs. The word was used by Thomas More in the book of the same name, *Utopia*, which he wrote in 1516. This video from the BBC provides a basic introduction to the origins of the term and how it is often typically used.



**Dystopia**, as you can imagine, is the exact opposite of *utopia*. But as this summary of both concepts point out, both terms refer to ideas and not to real states of affairs in the world, because neither a pure *utopia* nor a pure *dystopia* is achievable. Many post-apocalyptic stories and movies portray a dystopian future.

related to fiction and literature. The term *utopia* was coined by Sir Thomas More in his 1516 book named "Utopia". The words act as each other's antonyms.

Both the terms and their characteristics have been used in fiction many times and have proven their acceptability.

### Key Takeaways

1. Utopia refers to an imagined perfect or ideal

The notion of **heterotopia** was developed by the French philosopher Michel Foucault in the 1980s. It is a somewhat more complex idea to explain. The two videos on this page and Andrew Wood's summary of Foucault's writing on this help to provide you a feel for the concept. For the purposes of this course, you can temporarily consider a heterotopia to be somewhere in between, outside of, or a juxtaposition of utopias and dystopias. A heterotopia is a space of overlapping or nested states. It can be transgressive, liminal, disconcerting, messy, weird, celebratory... or all of



these all at once. In his writings, Foucault provided examples of different kinds of heterotopias.

Jake Ramos' [Island Punk](#) is an example of a heterotopia. The scenarios depicted from [The MFL workshop](#) storyline of the Trappist exoplanetary system also heterotopic ones.

As complex as a heterotopia is to explain, there are many more examples of heterotopias in the real world than there are of utopias and dystopias.



### COMM 149F - Summary of Of other spaces

<https://www.sjsu.edu/faculty/wooda/149F/149-Foucault.html>

**COMM 149F**  
Rhetoric and Public Life

Dr. Andrew Wood  
Office: HGH 2110; phone: (408) 924-5378  
[Andrew.Wood@sjsu.edu](mailto:Andrew.Wood@sjsu.edu)

#### Summary of Michel Foucault's "Of other spaces"

Foucault, M. (2006). Of other spaces (L. De Causer & M. Dehaeme, Trans.). In M. Dehaeme & L. De Causer (Eds.), *Heterotopia and the city: Public space in a postcivil society* (pp. 13-29). Milton Park, Abingdon, Oxon: Routledge.

Michel Foucault's musings on heterotopia are notoriously dense and difficult to read. Some scholars go further in their critique, claiming that he never intended his words on this topic to be published as a formal essay; others even propose that he delivered this idea as a sort of practical joke. Nonetheless, his formulation has inspired generations of scholars to descend the rabbit hole of heterotopian thinking. The version of Foucault's essay I've selected for this class starts with translators' notes that unpack some of the work's complexity. Thereafter, Foucault launches into a description of how the nineteenth century focus on time has given way to a more recent attention to space.

The author begins by explaining that our understanding of space - particularly in the relationships between environments, peoples, and things - has changed. He describes the arrangement medieval spaces as one of hierarchy, with some spaces being more important than others. He then notes how Galileo's heliocentric model challenged that sense of hierarchy by suggesting that the vastness of space removes the "localness" importance of any particular locale, even the Earth. From this point, Foucault argues that a new perspective of space has arisen in the modern era: emplacement. The translators use that word, "emplacement," for several reasons. But for our purposes, we might simply understand it as a "site" produced through human sense-making.

The production of a site, after all, occurs amid an infinite array of possible choices. Pause here and consider the rhetorical implication of that move. What Foucault is saying is that an emplacement is not created by some supreme force; it is a choice - like all rhetorical forms - to organize the world and its human technologies, and to make that organization seem reasonable, even necessary. Initially he adds that our choices to array spaces in particular ways inspire all sorts of technical challenges. More importantly, though, Foucault states that the production of space (eg, a "classroom" amid a seemingly endless array of roads and buildings) is "haunted by fantasy" (p. 16); it is the choice of its inhabitants to adapt themselves to a shared meaning. In other words, our performances of emplacement are just as necessary as the designs and plans of its architects.




## Imagining yourself in the future, part 3: PAGTANAW 2050 forecast

☰ Schedule Week 05 (Nov 7 - 13)

📅 Due date or event... November 10, 2022

☰ Activity Type Watch/listen/read and discuss

# Minutes required ... 90 

🔗 Corresponding C... ■ 3b (Shape)  
■ 2b (Analyze)

∨ 1 more property

By now, you should have watched the [The Terno Project: 2022 Resident Emerging Futurists' talk](#). Recall that one of the discussion points from the talk, which was there at least two ways that we can try to prepare for and shape the future: imagining and forecasting. For this course, we will focus on the first strategy of imagining, which is all about art thinking and creative speculation. We won't dwell too much on forecasting techniques, but it would also be a mistake to discount it entirely! So in this activity, you will engage in some of the forecasts that have been made by scientists about the Philippines for the next several decades.

**PAGTANAW 2050** is the first DOST-funded inter-disciplinary and trans-disciplinary project on Philippine-focused STI Foresight and Strategic Plan that will impact on the aspirations of the Filipino people by 2050.

- Download** the [Executive Summary](#) and [Section 2](#) of the [PAGTANAW 2050 report](#). You are of course welcome to download and read the entire report, but you aren't required to!
- Read** the Executive Summary. Note in particular the 12 key operational areas or topics covered by the report (e.g., blue economy, governance, business and trade, etc.)
- Pick** one specific area that you feel might be relevant to you, your family, your community, and/or your descendants by the time 2050 arrives.
- Quickly **browse** Section 2, which describes megatrends that will affect the development of these 12 key operational areas. These include trends in population, migration, poverty, economic inequality, etc. How might some of these trends affect the operational area you picked?
- Try to **imagine** three versions of 2050, each of which correspond to [Utopia](#), [Dystopia](#), and [Heterotopia](#) scenarios. (If it helps, try to imagine the older version of yourself from the [Imagining yourself in the future, part 1: Get acquainted with the older you](#) activity living in each of those three scenarios.) Again, think of the trends you had been introduced to in Section 2 of the Pagtanaw report.
  - For the heterotopia scenario, you are invite to consider how you might be able to apply the [Island Punk](#) idea.
- Speculate** on the state of your chosen area in those three versions of the feature. For example you might pick *blue economy*. In a bright, uplifting, utopic vision of 2050, what might the blue economy be like? What might the state of the blue economy look in a dark, depressing, dystopic take on 2050? Finally, what might it look like in a complex, multifaceted, perhaps vastly unfamiliar heterotopia take on 2050?
- Briefly (in 2-8 sentences) **describe** each of your three scenarios involving the future of the issue you have picked.
- Select or create an image** that represents each of those three scenarios. You won't be judged on the quality of the image, so don't be too precious about this! You can draw the image yourself (stick figures are absolutely fine). You can choose an existing image (you can use other images that may be owned by others, since this is just a class exercise for now). Or—and this is the most fun option—use an artificial intelligence image-generator like [Night Cafe](#). This image will just be used to create a thumbnail for your scenario.

Submit all of this information using the forms below.

### 1. Upload a picture of your aged self

#### You in the future 1

Share the image you generated from the activity in which you aged yourself. This is a portrait of the potential version of yourself a few decades down the line!

Your name \*



### 3. Dystopia scenario

#### 2050 Dystopia

Describe the possible state of a key issue in a dystopic scenario.

Your name \*

+ Add



### 2. Utopia scenario

#### 2050 Utopia

### 4. Heterotopia scenario

#### 2050 Heterotopia



Describe the possible state of a key issue in a utopic scenario.

Your name \*

+ Add



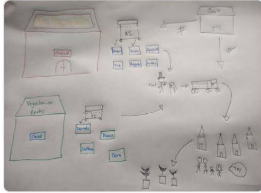
Describe the possible state of a key issue in a heterotopic scenario.

Your name \*

+ Add



**i** Current submissions



2022-11-10: Food Security and...

Scenario type

Utopic

Scenario

In a Utopian scenario of food security and nutrition, hunger and malnutrition is completely eradicated. The government will fund multiple projects such as ...

Contributor

Rel Daryle Dane R. Valle



2022-11-11: Environment and C...

Scenario type

Utopic

Scenario

In the 2050 utopian future, the environment is healthy in its glorious state. Freshwater. Clean air. Organic foods. Healthy inhabitants. Flowers are...

Contributor

Faye Anjeli S. Lopez



2022-11-12: Environment and ...

Scenario type

Utopic

Scenario

Clean water is available to everyone in a utopian 2050, regardless of location or social status. The mountains are green and glorious, and the fauna and flora a...

Contributor

Michelle Lado



2022-11-12: Space Exploration ...

Scenario type

Utopic

Scenario

Space Exploration would be a vast feat by 2050 in the utopian. Everyone could now travel to space easily, like a museum exploration for everyday ...

Contributor

Airiel Licca Depante



2022-11-13: Energy - Utopic (b...

Scenario type

Utopic

Scenario

In 2050, humans completely transitioned to renewable energy. Solar

Airtable



2022-11-13: Shelter, Transport...

Scenario type

Utopic

Scenario

I would imagine the Philippines has this people-friendly, eco-friendly, and



2022-11-14: Governance - Uto...

Scenario type

Utopic

Scenario

In a utopian world, there will be no corrupt politicians sitting in position.



2022-11-14: Governance - Uto...

Scenario type

Utopic

Scenario

This is an alternative scenario of the "Great Reset" is aims to make every

Download CSV View larger version



# Replication project check-in

- Schedule: Week 05 (Nov 7 - 13)
- Due date or event...: November 11, 2022
- Activity Type: Hands-on activities (wearable tech-specific)
- # Minutes required ...: 5
- Corresponding C...: 3a (Develop)
- 1 more property

How is your 🦋 Treasure hunt 2: Replicating an existing project activity coming along? Share with the class how far you've gotten, and don't worry if you haven't gotten too far. You won't be graded nor judged for where you are at with this mini-project.

**Show the class how your replication project is coming along.**

## How is your replication of an existing project coming along?

What project are you working on?

+ Add

Show us how far you've gotten \*

Upload an image. Don't worry if you haven't gotten very far! You can continue working on this during the F2F weeks.

Attach file

Drop files here

Tell us about your progress

Airtable

**Class responses**

**Face Touch Alarm with Digital Badge Ne...**

{Student(s)}

Faye Anjeli S. Lopez Airlie Licca Depante Joshua

Why did you choose this? (from What project were your ...)

Two of our members were interested in the neckl...

URL of the project (from What project were your working ...)

<https://www.instructables.com/Face-Touch-Alarm...>

Image (from What project were your working on?)

Show us how far you've gotten

Download CSV View larger version



# Week 6: Putting it together (part 1)

▼ Contents

- 📄 Introduction and welcome
- 📄 Preparation before the course starts
- 📄 Assessment guide

▼ Weekly activities

- 📄 Week 1: Imagining Futures
- 📄 Week 2: Wearables in the near future: Physical computing and critical fashion
- 📄 Week 3: Wearables in the far future: Humanity in outer space
- 📄 Week 4: Engaging with deep time
- 📄 Week 5: Speculative imagination and forecasting
- 📄 Week 6: Putting it together (part 1)
- 📄 Week 7: Putting it together (part 2)
- 📄 Week 8: Presenting and communicating speculative ideas

To kick off the two-week period, we will do a 2-hour structured workshop on the first day of the F2F meeting. However, you are welcome and encouraged to stay on for the rest of the day. You should have received a calendar invite regarding this.

By the end of the week you should have a good idea of what you will be doing for your final project and who you would be doing it with. The session in which you [📄 Learn about the final project requirements and register your final project proposals](#) will help with this.

Throughout Weeks 6 and 7, you can drop-in at the Bukas space to work on your projects from 8 am to 4 pm, Mondays through Fridays. Please contact Diego, Jerome, and Lucky if you intend to do so at least one day in advance so we can be sure that one of us can be to help you with your questions. Working after-hours may be possible but only if one of us can be around to supervise you. (Even if you're not working on your projects, you are welcome to stay over and work on your other UPOU coursework.)

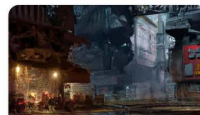
Throughout Weeks 6 and 7, the Bukas Space and other UPOU facilities at the DICT building in Diliman will be open for you to work on your projects.

🗂️ Activities

▼ Week 06 (Nov 14 - 20) 5



👥 F2F meeting at Bukas Space  
November 14, 2022 10:00 AM → 12:00 PM  
15



👤 Rapid-fire exercise: Designing wearable tech for 2050  
November 14, 2022 10:15 AM  
45



👤 Drop-in sessions @ Bukas space  
November 15, 2022 → November 25, 2022



📄 Introducing Speculative Design (part 2): Probable, Possible, Plausible, and Preferable Futures  
November 15, 2022  
90



👤 Learn about the final project requirements and register your final project proposals  
November 20, 2022  
60

▼ 13 hidden groups



## F2F meeting at Bukas Space

- ☰ Schedule Week 06 (Nov 14 - 20)
- 📅 Due date or event... November 14, 2022 10:00 AM → 12:00 PM
- ☰ Activity Type Synchronous interaction
- # Minutes required ... 15
- 🔗 Corresponding C...
  - 👁️ 4c (Produce)
  - ◆ 3c (Test)
- ∨ 1 more property

Try to make it for this first workshop. If you cannot make it, try to make it sometime to the lab during the day at least.

If there are too many of us and we can't all fit at Bukas, Jerome and Lucky will help you set up shop in another space one floor above, in the MC theater.



# Rapid-fire exercise: Designing wearable tech for 2050

☰ Schedule Week 06 (Nov 14 - 20)

📅 Due date or event... November 14, 2022 10:15 AM

☰ Activity Type Hands-on activities (general) Hands-on activities (wearable tech-specific) Synchronous interaction

# Minutes required ... 45

➤ Corresponding C... 3a (Develop) 3b (Shape)

∨ 1 more property

In this rapid-fire, convergent thinking exercise, you will combine existing submissions that you and your classmates had made in previous activities, in order to quickly propose a novel wearable tech that is relevant to the year 2050. Parts of this activity should be familiar to you because they were covered in Ann's workshop.

We will be doing this activity together as part of our F2F session in Week 6. This will be a very quick exercise to get your creative juices flowing. You will feel rushed and that you don't have enough time; that's OK!

However, you will also be proposing your final project using similar parameters. In fact, if you are happy to stick with the time frame of 2050, this exercise can serve as the foundation for your final project. However, if you want to pick a different future time frame for your final project---say, something closer to the future such as 2 years from now, or something further out than the year 2050, you will have that option as well.

! Fill in this form.

## Exercise: Designing wearable tech for 2050

This form is not accepting responses.

Airtable

📄 Class responses

<input type="checkbox"/>	HMW question	Image (Scenario)	Scenario t...	The situation	Issue	Your design interventi
1	2022-11-14: How can a wearable tech based on health tracker shoes ladies zipper pocket underpants be used by minimum wage workers who rely mainly on public transportation to move around in a heterotopic scenario involving "shelter, transportation, and other infrastructure" in the year...		Heterotopic	In a heterotopic Philippines, I can imagine transportation and other public and private infrastructures are slowly improving a...	Shelter, Transport...	
2	2022-11-14: How can a wearable tech based on health tracker eyeglasses be used by students in a dystopic scenario involving "shelter, transportation, and other infrastructure" in the year 2050?		Dystopic	I can imagine in a dystopian Philippines; all public infrastructures are unable to properly serve the people. Structures like civilian ...	Shelter, Transport...	
3	2022-11-14: How can a wearable tech based on diy knee energy harvester, 2w at 2 mph! rings be used by health and environment enthusiasts in a dystopic scenario involving environment and climate change in the year 2050?		Dystopic	In the 2050 dystopian future, our earth was ravaged by overpopulation. With the increase of people, there is an increase in power...	Environment and ...	
4	2022-11-14: How can a wearable tech based on mutalence underwear threadpaint embroidery without an embroidery hoop be used by environment and safety enthusiasts in a utopic scenario involving environment and climate change in the year 2050?		Utopic	In the 2050 utopian future, the environment is healthy in its glorious state. Freshwater. Clean air. Organic foods. Healthy inhabitants. ...	Environment and ...	
5	2022-11-14: How can a wearable tech based on boertex face touch alarm with digital badge necklace be used by poor communities in a dystopic scenario involving space exploration in the year 2050?		Dystopic	Space Exploration would be a cover-up for people by 2050 in the dystopian future. This is like the plot of Wall-E, wherein people would use goin...	Space Exploration	
6	2022-11-14: How can a wearable tech based on inflatable pouches for shape changing garments and accessories be used by astronauts and inhabitants		Heterotopic	Space Exploration by 2050 in the heterotopian future would have a fair	Space Exploration	





## Drop-in sessions @ Bukas space

☰ Schedule **Week 06 (Nov 14 - 20)** Week 07 (Nov 21 - 27)

📅 Due date or event... November 15, 2022 → November 25, 2022

☰ Activity Type **Synchronous interaction**

# Minutes required ... Empty

- 🔗 Corresponding C...
- 3a (Develop)
  - 3b (Shape)
  - 1b (Organize)
  - 2a (Research)
  - 2c (Describe)

∨ 1 more property

Throughout Weeks 6 and 7, you can drop-in at the Bukas space to work on your projects from 8 am to 4 pm, Mondays through Fridays. Please contact Diego, Jerome, and Lucky if you intend to do so at least one day in advance so we can be sure that one of us can be to help you with your questions. Working after-hours may be possible but only if one of us can be around to supervise you. (Even if you're not working on your projects, you are welcome to stay over and work on your other UPOU coursework.)



## Introducing Speculative Design (part 2): Probable, Possible, Plausible, and Preferable Futures

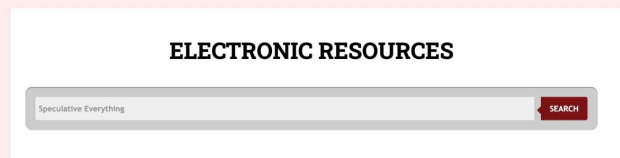
- ☰ Schedule Week 06 (Nov 14 - 20)
- 📅 Due date or event... November 15, 2022
- ☰ Activity Type Watch/listen/read and discuss
- # Minutes required ... 90
- Corresponding C... 2a (Research)
  - 1c (Choose)
- ∨ 1 more property

In  **Introducing Speculative Design**, you watched a video that presented an accessible introduction to speculative design. However, you should also be at the very least familiar with the seminal readings related to the subject. One of these is Anthony Dunne and Fiona Raby's seminal book on speculative design, *Speculative Everything: Design, Fiction and Social Dreaming*.

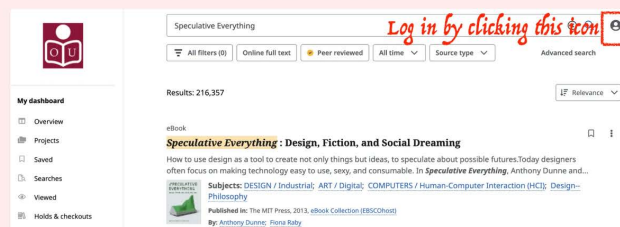
**i** This activity is particularly important for students who are doing the hackathon as their MMS 200 project. MMS 200 students will be expected to write a final report that is more substantial than the one for MMS 198, and you should cite academic references (including Dunne and Raby's book) in that report. You should also consult the list of publications that have since then cited that book, as well as the books that you can find in the Bukas Lab.

**!** You are expected to demonstrate an understanding of speculative design theory through your final project and your final project presentations.

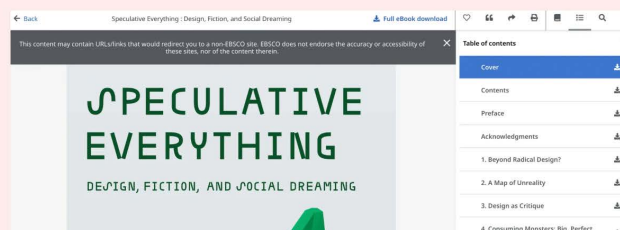
1. Access a digital copy of Anthony Dunne and Fiona Raby's seminal book on speculative design, *Speculative Everything: Design, Fiction and Social Dreaming* through the EBSCO service provided by the UPOU Library. (A physical copy of the book is also available at Bukas.)
  - a. Enter the book title in the electronic resources search box on the library website.



- b. Log in to the EBSCO website that pops up using your UP email address.



- c. You should be able to access the book now either as a PDF or an EPUB file.



2. Read Chapters 1 and 2 of the book. If you're short on time, read only pages 1-19. Pay particular attention to the following passage:

When people think of design, most believe it is about problem solving. Even the more expressive forms of design are about solving aesthetic problems. Faced with huge challenges such as overpopulation, water shortages, and climate change, designers feel an overpowering urge to work together to fix them, as though they can be broken down, quantified, and solved. Design's inherent optimism leaves no alternative but it is becoming clear that many of the challenges we face today are unfixable and that the only way to overcome them is by changing our values, beliefs, attitudes, and behavior. Although essential most of the time, design's inbuilt optimism can greatly complicate things, first, as a form of denial that the problems we face are more serious than they appear, and second, by channeling energy and resources into fiddling with the world out there rather than the ideas and attitudes inside our heads that shape the world out there.

3. Speculative design often involves describing, proposing, or prototyping products that don't appear to have any immediate use. Why might it be valuable to do so?
4. Describe what is meant by the following types of futures and how they related to each other:
  - a. Probable futures
  - b. Plausible futures
  - c. Possible futures
  - d. Preferable futures



# Learn about the final project requirements and register your final project proposals

- Schedule: Week 06 (Nov 14 - 20)
- Due date or event...: November 20, 2022
- Activity Type: Hands-on activities (general)
- Minutes required ...: 60
- Corresponding C...: 4a (Collect), 3b (Shape), 2c (Describe)
- 1 more property

- On this page
- Final project considerations
- Final project grading

In the [Rapid-fire exercise: Designing wearable tech for 2050](#) activity, you took a shot at putting together a proposal for a wearable tech solution that addresses an issue that is specifically set in the future. Now you can start pitching your ideas for your final project.

## Final project considerations

Click an image to expand it.

**Logistics**  
Are you working individually or as a team? Are you still looking for teammates? Are you an MMS 198 or an MMS 200 student?

**A time frame**  
How far in the future do you want to think ahead?

**An issue**  
What issue exists in the future scenario you have in mind?

**A state**  
What is the state of the issue in your projected future?

**Plausibility**  
Where along the cone of futures is your scenario located? It doesn't matter whether your scenario is probable, plausible, or "just" possible. What matters is that you are conscious of where it lies along the cone of futures.

**A user group/user type/profession**  
Who is affected by the issue?

**Body part(s)**  
What parts of the body might be involved in the wearable tech you want to propose?

**A location**  
Where might your intended user be located when using your wearable tech?

**Inspirations**  
What are your inspirations for your wearable tech proposal?

## Final project grading

The final project will be graded using the following considerations:

**ART THINKING DESIGN THINKING**

**Art- and futures-thinking:** To what extent does the project expand our notion of what is plausible in the future? To what extent does the project embody a creative way of anticipating or shaping futures?

**Implementation:** How well did you execute the final prototype? To what extent does the final prototype approach the ideal version of the technology? How do the visual and other sensory aspects of the project create a compelling experience for the user or the audience?

**Relevance and poetics:** If the prototype is a work of critical or speculative design, how well is it contextualized with respect to the issue you have identified? If it is meant as a functional design, to what extent does it address the needs or desires of your intended typical user with respect to the issue you have identified?

With all of these considerations in mind, present your final project proposal to the group during the F2F session so we can discuss it as a class. Afterwards, register your proposal using [this form](#).

# Project pitch or initial presentation

## Your name \*

Even if you are already working as part of a team, every individual should submit this form for assessment purposes.

+ Add

## Tentative Project Title/Codename

## Are you still looking for final project teammates? \*

You can work in small teams or individually. Don't be afraid to work individually or to state that you are part of a team that is no longer accepting new members.

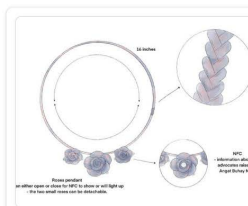
If you are doing the hackathon as your MMS 200 project, consider working individually. If you wish to work as a team, I strongly recommend that you work only with other MMS 200 students. MMS 200 students have additional requirements that MMS 198 students don't have.

## Time frame \*

How far in the future do you want to situate your project? Specify it in



## Class submissions so far



### HASMI

TIME FRAME  
17 years from now

AN ISSUE  
Information Quality and Privacy

SCENARIO  
Heterotopia

How plausible do you think this issue+sc...  
Probable

User group  
Filipino Youth

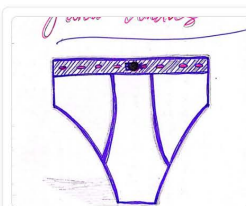
Location  
Philippines

Inspiration 1  
PyLeap CLUE Custom Conference ...

Inspiration 2  
Necklace

Inspiration 3  
Face Touch Alarm with Digital Bad...

How do you think the wearables you chos...  
It can be used as an easier way to store information to use as a way of communicating, give out tutorials, or



### Panic Undies

TIME FRAME  
5 years into the future

AN ISSUE  
Social media and other online platforms to communicate are already rampant and available even to minors. Personal information are ...

SCENARIO  
Dystopia

How plausible do you think this issue+sc...  
Probable

User group  
women (but also for other genders)

Location  
anywhere; if the victim is unconscio...

Inspiration 1

Inspiration 2  
Underwear, Nipple Tapes

Inspiration 3

How do you think the wearables you chos...  
The underwear can sense movement when stretched forcefully. Once there is movement, it will play a



### Mark I

TIME FRAME  
5 years into the future

AN ISSUE  
As years go by, fewer and fewer people become farmers and agriculturists. The lack of technology and enough knowledge and skills ...

SCENARIO  
Utopia

How plausible do you think this issue+sc...  
Plausible

User group  
Farmers

Location  
Home/nature

Inspiration 1

Inspiration 2

Inspiration 3

How do you think the wearables you chos...  
To interest people, planting/farming should catch up on technological advancement. We can start by







# Week 7: Putting it together (part 2)

- ▼ Contents
  - 📄 Introduction and welcome
  - 📄 Preparation before the course starts
  - 📄 Assessment guide
- ▼ Weekly activities
  - 📄 Week 1: Imagining Futures
  - 📄 Week 2: Wearables in the near future: Physical computing and critical fashion
  - 📄 Week 3: Wearables in the far future: Humanity in outer space
  - 📄 Week 4: Engaging with deep time
  - 📄 Week 5: Speculative imagination and forecasting
  - 📄 Week 6: Putting it together (part 1)
  - 📄 Week 7: Putting it together (part 2)
  - 📄 Week 8: Presenting and communicating speculative ideas

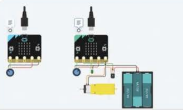
This week, you will pitch your final project ideas to the class so you can get some feedback about the direction that you're going. This will be your last proposal presentation, and that afterwards you have the rest of the course to make your project!

In the previous activity, Using Micro:bit simulators on Tinkercad + incorporating physical components, almost all of you chose to hook up a potentiometer to the Micro:bit. If you did, well done! You've successfully attached an external *input* component to your Micro:bit. However, to get an even better sense of what your Micro:bit can do, you should also do the LED blinking exercises so you can get a sense of what is involved in attaching an external *output* component to the microcontroller. If you haven't done the LED blinking exercise (either the single blinking red LED or the traffic light LEDs), then you should do it this week. You are welcome to work in groups to get this done, although you should still submit your results as individuals.

Throughout Weeks 6 and 7, you can drop-in at the Bukas space to work on your projects from 8 am to 4 pm, Mondays through Fridays. Please contact Diego, Jerome, and Lucky if you intend to do so at least one day in advance so we can be sure that one of us can be to help you with your questions. Working after-hours may be possible but only if one of us can be around to supervise you. (Even if you're not working on your projects, you are welcome to stay over and work on your other UPOU coursework.)

Activities

▼ Week 07 (Nov 21 - 27) 3



Using Micro:bit simulators on Tinkercad + incorporating physical components


November 3, 2022

90



Drop-in sessions @ Bukas space

November 15, 2022 → November 25, 2022



Present your proposal for your final project (Bukas/Zoom)

November 21, 2022 11:30 AM → November 28, 2022 9:30 AM

90

▼ 13 hidden groups



## Drop-in sessions @ Bukas space

☰ Schedule **Week 06 (Nov 14 - 20)** Week 07 (Nov 21 - 27)

📅 Due date or event... November 15, 2022 → November 25, 2022

☰ Activity Type **Synchronous interaction**

# Minutes required ... Empty

🔗 Corresponding C...  3a (Develop)

3b (Shape)

1b (Organize)

2a (Research)

2c (Describe)

∨ 1 more property

Throughout Weeks 6 and 7, you can drop-in at the Bukas space to work on your projects from 8 am to 4 pm, Mondays through Fridays. Please contact Diego, Jerome, and Lucky if you intend to do so at least one day in advance so we can be sure that one of us can be to help you with your questions. Working after-hours may be possible but only if one of us can be around to supervise you. (Even if you're not working on your projects, you are welcome to stay over and work on your other UPOU coursework.)



## Present your proposal for your final project (Bukas/Zoom)

**Schedule** Week 07 (Nov 21 - 27)

**Due date or event...** November 21, 2022 11:30 AM → November 28, 2022 9:30 AM

**Activity Type** Synchronous interaction

**# Minutes required ...** 90

**Corresponding C...**

- 4b (Communicate)
- 3c (Test)
- 3b (Shape)
- 3a (Develop)
- 1b (Organize)
- 2 more...

1 more property

Make sure you have finished the activity in which you learn about the final project requirements and register your final project proposals. And then prepare to do an informal presentation of your proposal so that you can get some feedback about it.

Class submissions so far

<p><b>HASMI</b></p> <p><b>TIME FRAME</b> 17 years from now</p> <p><b>AN ISSUE</b> Information Quality and Privacy</p> <p><b>SCENARIO</b> Heterotopia</p> <p><b>How plausible do you think this issue+scenar...</b> Probable</p> <p><b>User group</b> Filipino Youth</p> <p><b>Location</b> Philippines</p> <p><b>Inspiration 1</b> PyLeap CLUE Custom Conference Bad...</p> <p><b>Inspiration 2</b> Necklace</p> <p><b>Inspiration 3</b> Face Touch Alarm with Digital Badge N...</p> <p><b>How do you think the wearables you chose c...</b> It can be used as an easier way to store information to use as a way of communicating, give out tutorials, or</p>	<p><b>Panic Undies</b></p> <p><b>TIME FRAME</b> 5 years into the future</p> <p><b>AN ISSUE</b> Social media and other online platforms to communicate are already rampant and available even to minors. Personal information are easily accessible to ...</p> <p><b>SCENARIO</b> Dystopia</p> <p><b>How plausible do you think this issue+scenar...</b> Probable</p> <p><b>User group</b> women (but also for other genders)</p> <p><b>Location</b> anywhere; if the victim is unconscious ...</p> <p><b>Inspiration 1</b> —</p> <p><b>Inspiration 2</b> Underwear, Nipple Tapes</p> <p><b>Inspiration 3</b> —</p> <p><b>How do you think the wearables you chose c...</b> The underwear can sense movement when stretched forcefully. Once there is movement, it will play a sound to alarm</p>	<p><b>Mark I</b></p> <p><b>TIME FRAME</b> 5 years into the future</p> <p><b>AN ISSUE</b> As years go by, fewer and fewer people become farmers and agriculturists. The lack of technology and enough knowledge and skills caused a decline ...</p> <p><b>SCENARIO</b> Utopia</p> <p><b>How plausible do you think this issue+scenar...</b> Plausible</p> <p><b>User group</b> Farmers</p> <p><b>Location</b> Home/nature</p> <p><b>Inspiration 1</b> —</p> <p><b>Inspiration 2</b> —</p> <p><b>Inspiration 3</b> —</p> <p><b>How do you think the wearables you chose c...</b> To interest people, planting/farming should catch up on technological advancement. We can start by building a</p>	<p><b>Exergen (Exercise Generator)</b></p> <p><b>TIME FRAME</b> 20 years into the future</p> <p><b>AN ISSUE</b> In 20 years, advancements in Virtual Reality, Augmented Reality and Mixed Reality technology will further accelerate the need for portable and ...</p> <p><b>SCENARIO</b> Heterotopia</p> <p><b>How plausible do you think this issue+scenar...</b> Probable</p> <p><b>User group</b> Astronauts, Work from home employee...</p> <p><b>Location</b> Space stations, future civilizations on ...</p> <p><b>Inspiration 1</b> Knee-D, EXPLORATION OF INFLATABL...</p> <p><b>Inspiration 2</b> —</p> <p><b>Inspiration 3</b> —</p> <p><b>How do you think the wearables you chose c...</b> There is an opportunity for exercise and resistance training devices such as weights, stationary bicycles, and</p>
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# Week 8: Presenting and communicating speculative ideas

- ▼ Contents
  - 📄 Introduction and welcome
  - 📄 Preparation before the course starts
  - 📄 Assessment guide
- ▼ Weekly activities
  - 📄 Week 1: Imagining Futures
  - 📄 Week 2: Wearables in the near future: Physical computing and critical fashion
  - 📄 Week 3: Wearables in the far future: Humanity in outer space
  - 📄 Week 4: Engaging with deep time
  - 📄 Week 5: Speculative imagination and forecasting
  - 📄 Week 6: Putting it together (part 1)
  - 📄 Week 7: Putting it together (part 2)
  - 📄 Week 8: Presenting and communicating speculative ideas

You should keep in the back of your mind that you're going to present your project at the very end of the course; to this end, three very short activities will ask you to consider how you're going to present and communicate your final project.

## 📅 Activities

### ▼ Week 08 (Nov 28 - Dec 2) 3

📄 Communicating speculative design ideas (1): Curious Rituals

November 28, 2022

20

📄 Communicating speculative design ideas (2): Circumventive Organs

November 28, 2022

15

📄 Treasure hunt 3: Good practices in presenting and communicating ideas

November 30, 2022

20

▼ 13 hidden groups



CURIOSRITUALS.WORDPRESS.COM



CURIOUS RITUALS  
GESTURAL INTERACTION IN THE DIGITAL EVERYDAY



## Communicating speculative design ideas (1): Curious Rituals

☰ Schedule Week 08 (Nov 28 - Dec 2)

📅 Due date or event... November 28, 2022

☰ Activity Type Watch/listen/read and discuss

# Minutes required ... 20

➤ Corresponding C... 4b (Communicate)

✓ 1 more property

For your final presentation of your project at the end of the course, you will be asked to communicate in a compelling way what your vision of the future is and how your wearable technology fits into or interrogates that vision of the future. One of the ways you can do this is by creating a video involving your wearable technology that shows how it might be used.

! Creating a compelling video doesn't need to be expensive, as you can see in the case of *Curious Rituals*, a speculative design research project by resident researchers at the Near Future Laboratories that explored "potentially new kinds of gestures and postures in the near future".

1. Browse through the [website of the Curious Rituals project](#). Note in particular the reasons the researchers gave for their project:

Based on the behavior we noticed, we were interested in how the type of situations and the motivations we uncovered would appear when using upcoming technologies: *How would people skip ads while using their augmented reality glasses? What will be the nervous tics of users who employ facial recognition systems? Will we still gesticulate when using brain-computer interfaces?*

2. Watch the film that they produced in order to propose answer to the questions they proposed their speculative technologies.



3. According to the researchers, the exploration "has been done through the crafting of a design fiction in a film format." What do they mean by this? How did they use low-tech means to convey proposals for sophisticated technologies?
4. How might you use the techniques used in a film like this to present your final project?



## Communicating speculative design ideas (2): Circumventive Organs

☰ Schedule Week 08 (Nov 28 - Dec 2)

📅 Due date or event... November 28, 2022

☰ Activity Type Watch/listen/read and discuss

# Minutes required ... 15

➤ Corresponding C... 4b (Communicate)

∨ 1 more property

In [Communicating speculative design ideas \(1\): Curious Rituals](#), you saw how researchers were able to compellingly describe novel, speculative technologies by merely hinting at them. They didn't actually have to make any of the technologies they were proposing.

In the project *Circumventive Organs* (which you had previously encountered in the [Speculative design and wearable tech workshop with Ann Peeters](#)), designer Agi Haines takes on a more involved approach. She actually creates prototypes of the technologies that she has imagined and then uses performative means to demonstrate how they might function and be used.



1. Browse through the webpage of the *Circumventive Organs* project. What is the groundbreaking disruption/innovation that forms the basis of Agi Haines' speculative design?

▶ (Expand to see the answer)

2. Watch the video embedded in the project website (and is also embedded here). How does this video inform or enrich your understanding of Agi Haines' project?



3. How might you use an approach like the one taken in *Circumventive Organs* to present your final project?



## Treasure hunt 3: Good practices in presenting and communicating ideas

☰ Schedule Week 08 (Nov 28 - Dec 2)

📅 Due date or event... November 30, 2022

☰ Activity Type Treasure hunts

# Minutes required ... 20

🔗 Corresponding C... 1b (Organize)  
2a (Research)

∨ 1 more property

There are plenty of ways of presenting and communicating ideas in a compelling way aside from doing a video. In this activity, you are asked to find and share an example of a good practices in presenting and communicating speculative ideas.



- Go through the following websites once again and pick one project that you think did a great job of **communicating** their project. Perhaps the actual project wasn't particularly sophisticated or novel, but you found the way the creators presented, discussed, or illustrated their work to be compelling. (You're welcome to reuse any of the past projects that you or your classmates have highlighted in the past.) (NB: You can also use another project not listed in any of the sites below, as long as they are an example of wearable or speculative design!)

- <https://www.kobakant.at/DIY/>
- <https://class.textile-academy.org/projects/>
- <https://etextile-summercamp.org/swatch-exchange/>
- <https://learn.adafruit.com/category/wearables>
- <https://www.instructables.com/circuits/wearables/projects/>

- Share your picks with the class by posting in this Airtable form (also embedded below).

### Treasure Hunt 3

What project did a good job of presenting or communicating their ideas?

Your name \*

You should work individually for this project

+ Add

Name of the well-communicated/well-presented project \*



### Class responses



2022-12-01: THE MYCELIUM HOUSE (by Faye Anjeli S. Lop...)

Why did you choose this?

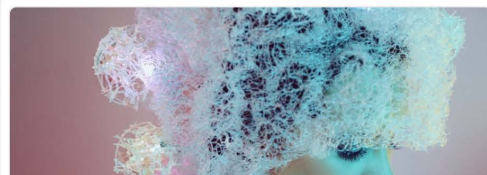
The project is fascinating, but the video exceeded my explanation and aesthetic expectations. The first part starts with a poetic narration of the problem, how people become greedy, and how it affects the environment. It is like setting the concept and the emotions. I also liked that the creator...



2022-12-06: Cocoon Final Submission (by Rei Daryle Dan...)

Why did you choose this?

The entire presentation matches the aesthetic of the project. I think the way it is presented is accurate for the project's concept. It has three visual presentations to help in communicating the work which are not usual presentations. The first presentation used a montage to show how the ...



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