

**PROJECT 3: WRITE AN EXECUTIVE
SUMMARY**

DELIVERABLE

- Each group should produce **at least one executive summary** to be posted to #classnotes by Wednesday.
- **EXTRA CREDIT:** For each additional unique executive summary produced *by Friday* each group earns +2 points for their group towards their final grade in this unit.
 - **(This is *a really easy way to earn extra credit.*)**
- **Archivist** should create an online repository for design materials such as the physical computing project outline, reference images, sketches, and code; share this with your group by Wednesday.
- **Project Manager** should develop a (very loose!) schedule for completing their project, working backwards from the final deadline, and considering the spring break (including plans of their group members).
- **Fabricator** and **programmer** should begin making decisions about what materials they'll be using: cardboard, chipboard, saran wrap, aluminum foil, old clock radio? HTML5, JavaScript, p5.js, something else?
- **Researcher** should begin researching the problem space. What is the problem? What causes it? What ways have people *tried* to solve it in the past – and why have they failed?

WHAT SHOULD AN EXECUTIVE SUMMARY INCLUDE?

- **What is your goal or objective?**
 - In other words: what order are you trying to impose on the world?
- **Who is your target audience for this prototype?**
- **What is the problem that you're designing to solve?**
- **What is the solution?**
- **What is the elevator pitch (2-3 sentences)?**
- **What are the core features of this solution?**
 - *Or put another way, what are its unique selling points? How is it unlike anything else that has been tried?*

PROJECT 3: KEY QUESTIONS

- what is the problem you're trying to solve, and how would you categorize it?
 - e.g. food, health, accessibility, climate change, animals, politics, art, gaming
- what type of design solution did you come up with?
 - e.g. game controller, IoT product, wearable, art object, immersive installation
- what is the sensor/input, where is it, and how is it triggered?
 - (label this on your sketches/diagrams; describe what it measures and how)
- what is the actuator/output, where is it, what is the feedback?
 - (label this on your sketches/diagrams; describe what is affected and how)

A BASIC DESIGN METHODOLOGY

Empathise



Define



Ideate



Prototype



Test



• TODAY WE WILL:

1. Empathise
2. Define
3. Ideate

STEP ONE: EMPATHIZE

- At this point, you've been with your group thinking about a single problem and working towards a solution.
 - It is related to the experience of life in New York City, a place where you live.
- Over the course of ~5-10 minutes, you had a discussion which began with these concepts, working towards a problem you might like to solve, or a solution you might like to pursue.
- You assigned someone to make a record of your conversation – it could be notes, but it could also be an **audio or video recording**.

STEP TWO: DEFINE

In order to settle on an idea, a problem, a solution... work towards defining a problem to solve.

- **What is the problem that you're designing to solve?**
- **What is your goal or objective?**
 - **In other words: what order are you trying to impose on the world?**
- **Who is your target audience for this prototype?**
 - **The people who will be helped? The people who will fund your design project? Other designers who you will persuade to work with you?**

Use the conversation that you just had as material!

STEP THREE: IDEATE

Each group member should write down at least nine possible ways to solve the problem.

They don't have to be good!

It's ok if some of them are comically bad or even cartoonishly evil – it's good to know what we're *not* trying to design, what we want to avoid, what potential pitfalls exist, and so on.

Aim for physical computing solutions – but don't make that a limitation. As a human-centered computing concept, physical computing can easily enter into any human concern later on!

STEP FOUR: ITERATE (OR: STEP THREE -> TWO: IDEATE -> DEFINE)

1) Make a big pile of solutions. For instance: create a single Google Doc and everyone can type/cut&paste their nine ideas into it.

2) Each of you should pick your favorite solution.

It could be yours! It could be a group members'! It could be an entirely new idea that's a mash-up of one or more ideas!

It doesn't have to be the 'best' – it could be the strangest, or the most interesting, or the most challenging.

3) Define the following:

What is the solution?

What is the elevator pitch (2-3 sentences)?

What are the core features of this solution – or put another way, what are its unique selling points? How is it unlike anything else that has been tried?

Share it with your group.

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