Design Thinking and Electronic Prototyping

Week 6

A"

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School of Electrical
Engineering**

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Project

Today (13.10.):

    Project Plan

In 7 weeks (1.12):

    Project Results with Prototype Demo

Project planning

1. **Goal**
   1. What are you trying to create

2. **Tasks**
   1. What functionalities/features/components you plan to create
   2. Which activities are necessary to get to your result
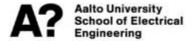   3. Remember – time is needed for exploring, integrating and testing!

3. **Resources**
   1. Who is available, for how many hours, and when
   2. Who will be in Finland - when

4. **Schedule**
   1. Add key milestones (internal project goals / iteration)

Project plans – let's review

Project evaluation in the end

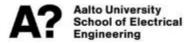1. Design Concept
2. Design Exploration
3. Design Judgment

Design Concept

1. **Name & Visualisation**

2. **Purpose & Users**

3. **Key benefits (which problems solves / value adds)**

Design Exploration

1. User study: Observations/Findings about users

2. Technology study: Observations/Findings about tech

3. Excess Ideas: Which ideas were considered but discarded

Design Judgment

1. **Why do you think that your idea is a good one?**
   - If it solves a problem – is that problem really a meaningful one to be solved?

2. **Why did you choose to prototype the specific functions and features?**

3. **Why did do the project activities in the order that you did?**

4. **Why did you discard certain ideas?**

Assistant meetings – Weekly!

1. **You are required to meet with your team's assistant weekly**
    *   Recommendation is ~30 minutes
    *   It is to present your project status, open questions, and to adjust your plans
    *   Negotiate the schedules with your team's assistant

This and the next week's tasks

1. **Diary – Deadline on Monday 26.10. at 10 AM**

2. **Reading: Chapter 3 + Start of Chapter 4 until p. 140**
   - Knowledge in the Head and in the World
     - The Tradeoff Between Knowledge in the World and in the Head
     - Memory in Multiple Heads, Multiple Devices, Natural Mapping
     - Culture and Design: Natural Mappings Can Vary with Culture
   - Knowing What to Do
     - Constraints, Discoverability, and Feedback, Four Kinds of Constraints: Physical, Cultural, Semantic, and Logical, Applying Affordances, Signifiers, and Constraints to Everyday Objects

3. **Exercises**
   - 07. I^{2}C bus

4. **Project**
   - Contact your assistant – weekly meeting REQUIRED
   - Start building your prototype!

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