

ED Workshop

Feedback and feedforward



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School of Electrical
Engineering

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Common Sessions

ED Workshop (Wednesdays 10-12 @TU5)

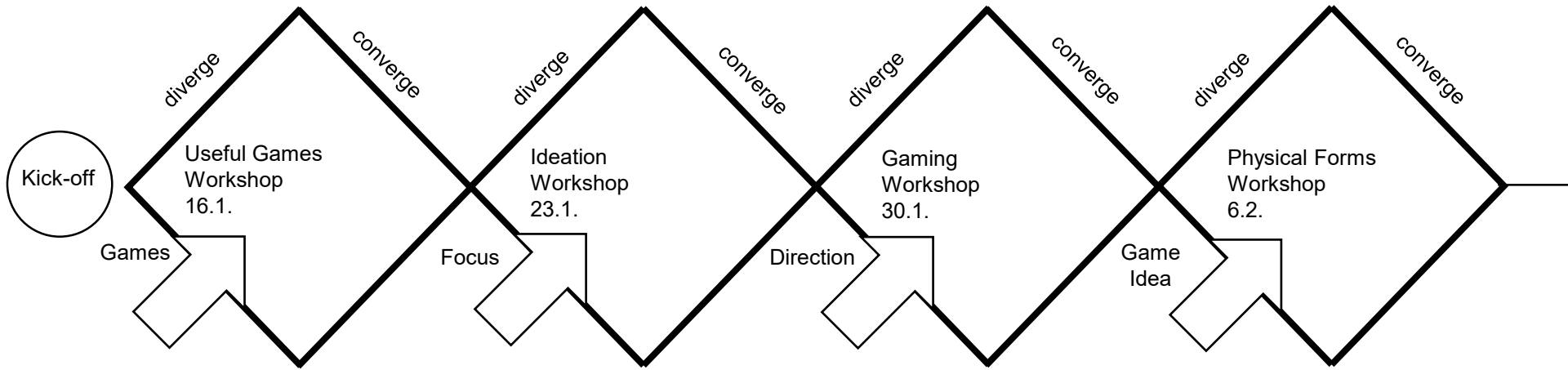
1. Kick-off
2. Useful Games Workshop
3. Ideation Workshop
4. ~~Gaming Workshop~~ Back to school WS
5. Physical Forms Gaming Workshop
6. Physical Forms Workshop
7. **Feedback and Feedforward**
8. **Team Tutoring**
9. **Team Tutoring**
10. **Team Tutoring**
11. **Team Tutoring**
12. **Prototype Presentations**
13. **User Testing workshop ...**

Sähköpaja (Mondays 10-12 @TU2) in FINNISH

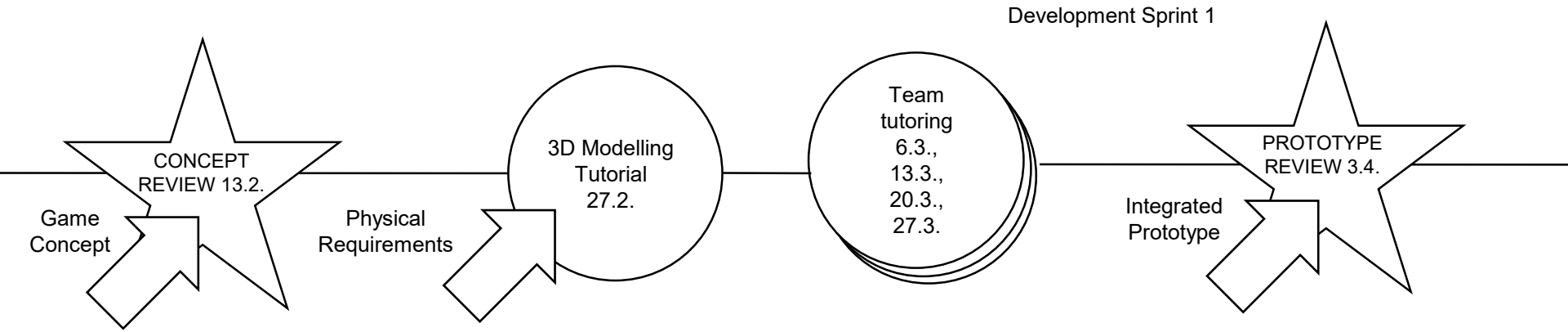
1. Introductions
2. Teaming up, Arduino examples
3. Basics of Arduino programming
4. Sensors
5. 3D printing and OpenSCAD
6. Arduino radios
7. Arduino buses (SPI, I2C, UART)
8. Aalto Ventures Program (AVP)
9. Aaltonaut, prototyping
10. Radio technology and Freakduino
11. Laser cutting, PCB making
12. Basics of electronics
13. User interfaces, measuring tools



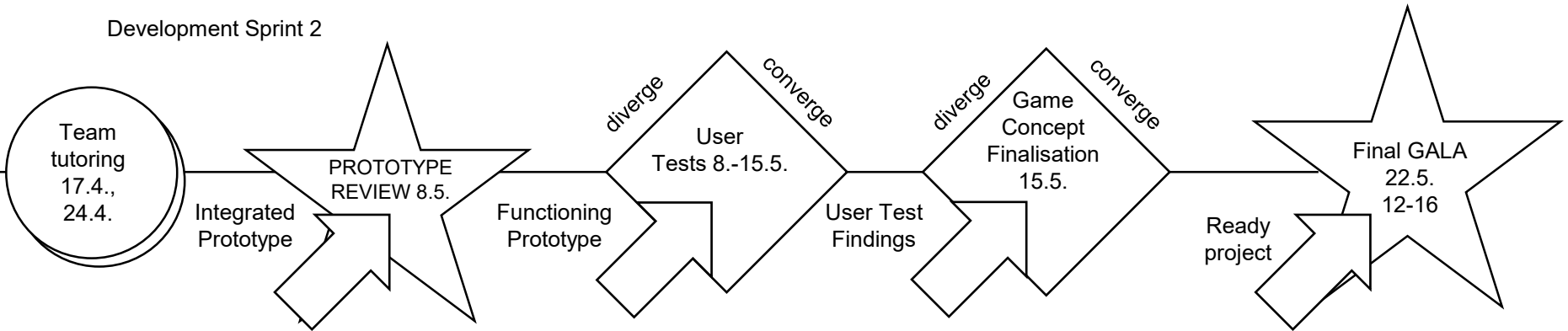
Design Project – Part #1/3



Design Project – Part #2/3



Design Process – Part #3/3



Design Process literature

A good overall book is

Dan Saffer: Designing for Interaction: Creating Innovative Applications and Devices (2ND EDITION), 2010

Feedback on Diaries

- **6/8 have returned**
 - -20% of grade per missed day
- **Diaries can be updated later in the final phase**
 - The final diary deadline is the most important and weighs 3/5 of the whole diary grade
 - All returning in time got 5 from the first diary delivery – but this is not enough for the next round
- **Diary grades are basically as follows:**
 - 0 (fail), 1 (sucks), 3 (there is a good chance to improve this) and 5 (the way to go!)

How to get a good grade for your diary in the next round

- **Write your diary whenever you are working on the project**
 - Include concrete details on some activities
- **Add pictures of your work**
 - These concretise your story – a pic tells more than 1000 words
- **Include your own thinking about your project**
 - Especially interesting are your expectations and surprises
- **Include references + explanation**
- **Hour sheet / hour calculation included**

Highlights from current diaries

“I'd like to do project where I could use my knowledge of...”

This is about expectations

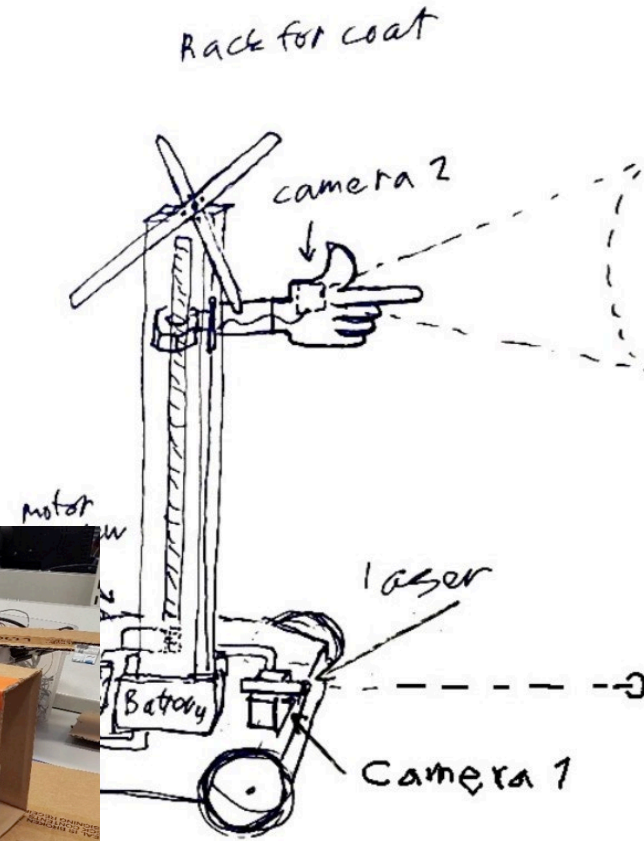
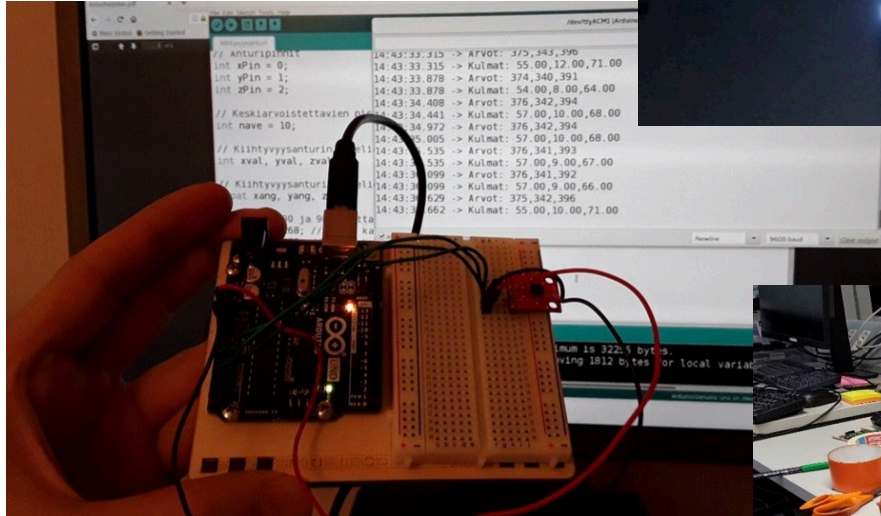
Highlights from current diaries

“In the workshop, I did four projects which includes digital serial, analog read serial, read analog voltage, and fade. I had to read the instruction very careful because it was very easy to make mistake.”

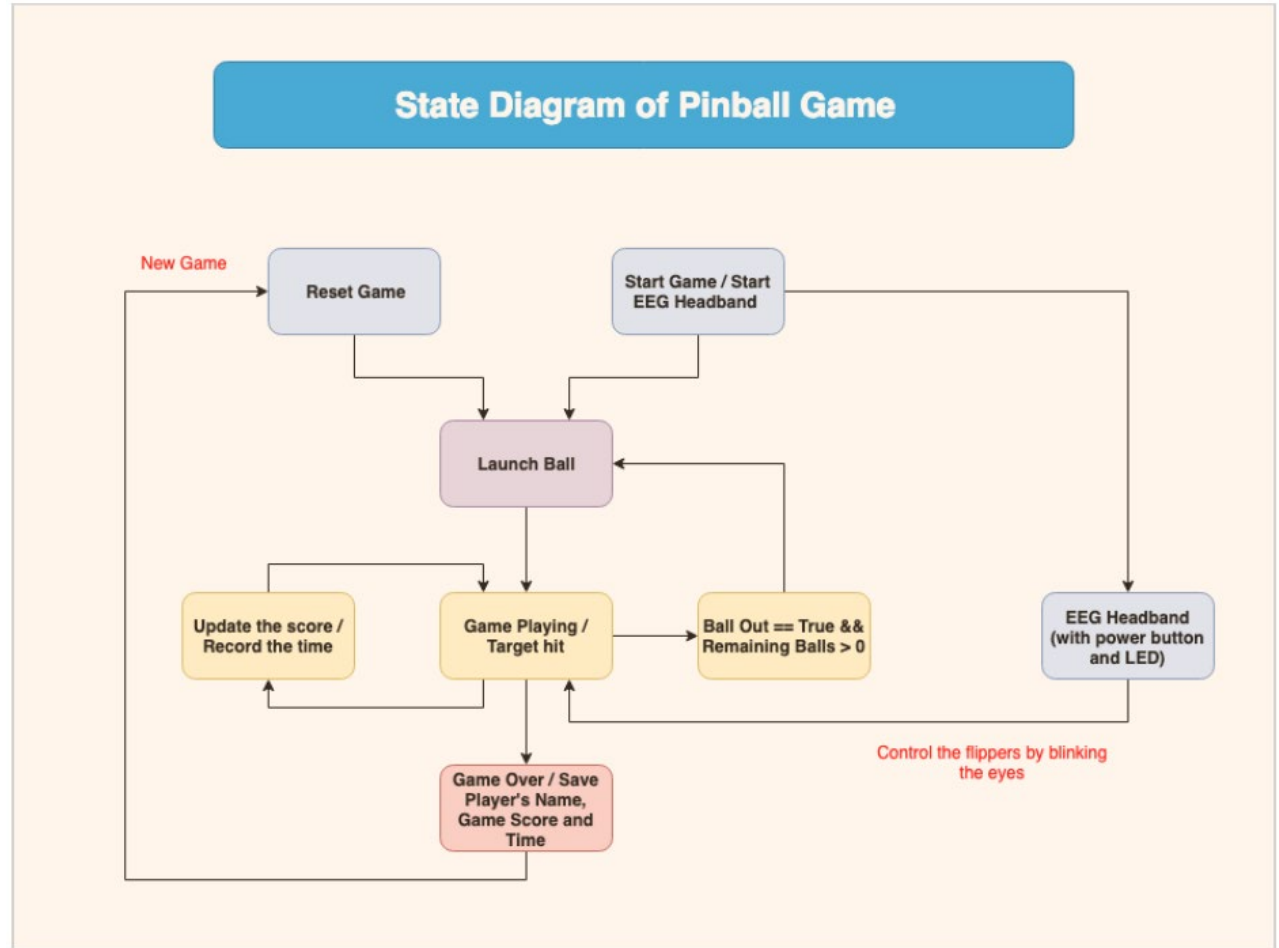
This is about personal experience + details

Highlights from current diaries

Pictures!



Diargams



Highlights from current diaries

“PHD thesis about gamification page 8 have nice table of psychological factors linked to games

https://aaltodoc.aalto.fi/bitstream/handle/123456789/15037/isbn978952606056_9.pdf?sequence=1&isAllowed=y”

References + a comment showing that you have actually taken a look at it!

Highlights from current diaries

“PENALIZING might be a bad idea, see the video below.

<https://www.youtube.com/watch?v=9vJRopau0g0>

They penalize gamers for not succeeding -5 points, gamers continued to try only 5 times with 52% success. Gamers who were not penalized tried 12 times getting 68% success.

Insights from sources!

Highlights from current diaries

“At the library I picked a book about wearable electronics. I got interested about necklace designed for mother and kid.”

Personal story

Highlights from current diaries

“Our team work could be better, what can I do to light some fire?”

Personal story + shows motivation

Highlights from current diaries

“This one was quit tricky I wrestled about 3hours to get it work properly. The piezo element took disturbance from servo that kept fring / buzzing. I’m still not sure the reason, I tried to “recalibrate it” without success. HOW to calibrate servo?”

Personal story – shows credibly your own struggles

Highlights from current diaries

“I rehearsed C language pointers.

- Array name refers to its first element memory address

```
1. int meatBalls[5] = {1,3,5,7,9};
2. print("\n meatBalls \t \t %p \n", meatBalls);
3. → meatBalls 0028FEF8
4. int hat = 10;
5. int *pHat = &hat;
6. print("\n pHat \t \t %d \n", *pHat);
7. → pHat 10
8. char *movie2 = "jungle"; // this stores the address where "jungle" begins puts( movie2
   ); // this reads chars till /0 fnd
9. → jungle
10. movie2 = "New jungle movie"; // now we can easilly change "movie2"
```

Personal exploration – a snippet of code with a story tells a lot!

Deliverables

- **Personal Learning Diary**
 - Returned in the end of each period (III, IV, V)
- **Project Wiki**
 - Team intro, focus, presentation files, links to (re-)sources (code, schematic)
- **Presentations**
 - Concept presentation (end of period III)
 - Prototype presentation (end of period IV)
 - Final Gala presentation (end of period V) + poster
- **Functioning Interactive Prototype**

Grading is based on the following

- **Learning diary (40%)**
- **Active participation (20%)**
- **Project, presentations and documentation (40%)**

- **This is a 5 ECTS course, ~135h of work is expected**
 - About one day/week – if constant speed



Task for next week

- **Project work**
- **Prepare to present your project situation for Salu**
- **Make sure to come on time to your tutoring meeting!**