

Interactive prototyping

15 ects

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Background

- technical change: “ubiquitous, ambient, pervasive...”
- this is getting more mature, but there are many approaches in this work
- design schools and design researchers

At UIAH

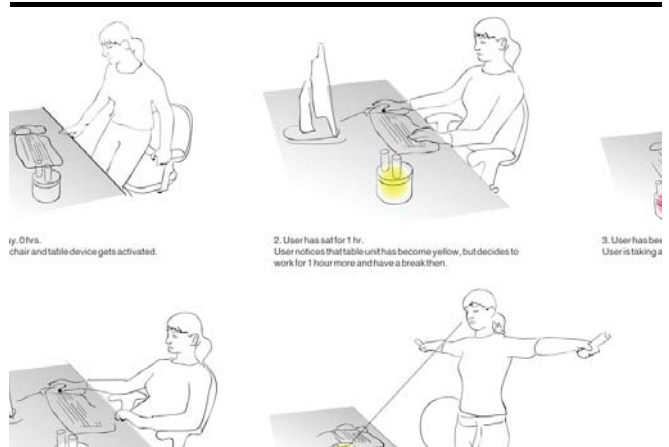
- This class builds on Turkka’s and Tuomi’s module user-inspired design, but takes the next step:
- how to prototype interactive concepts

Aims

- Learning / 1
 - the basics of microcontroller and elementary programming (with C)
 - **...within a design research frame**

- Learning / 2
 - Teaching you how engineering prototyping works

Pictrues from IPO



1. User sits at desk. Chair and table device gets activated.

2. User has sat for 1 hr. User notices that table unit has become yellow, but decides to work for 1 hour more and have a break then.

3. User has been sitting at desk for 2 hrs. User is taking a break.

hello!



hello! includes wristbands which are communicating with each other.

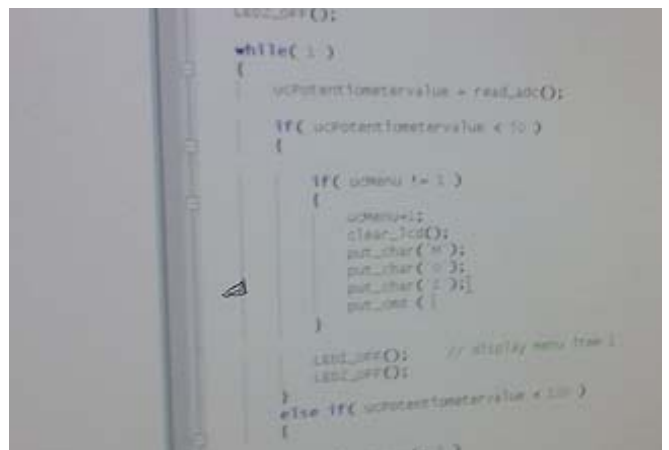
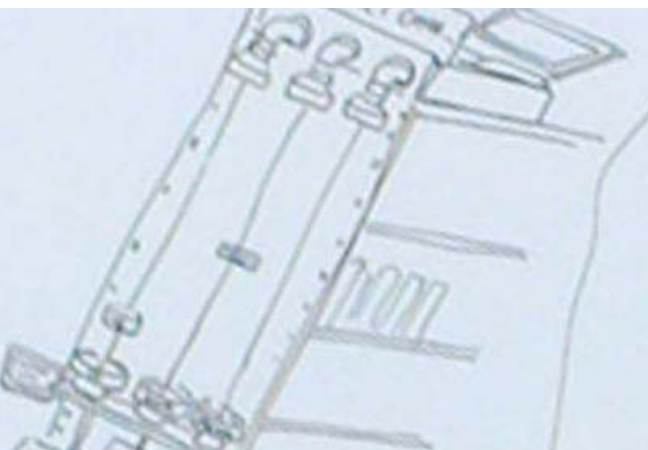
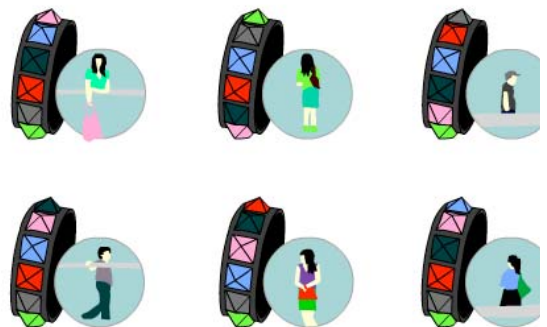
Each wristband has a radio which is transmitting/receiving information about location of friends.

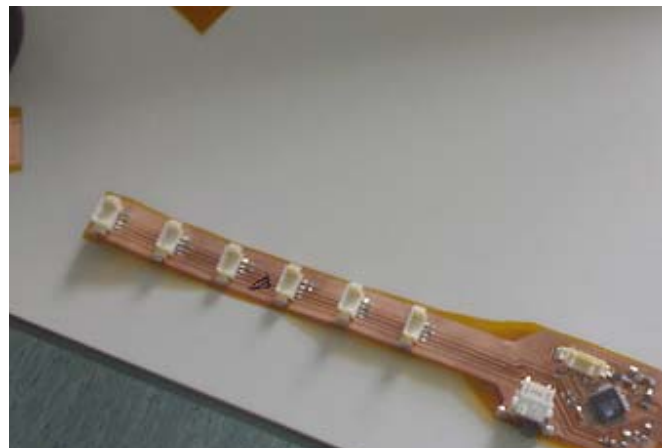
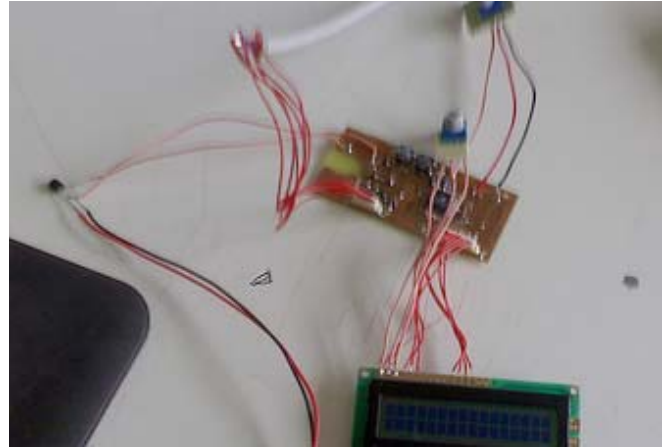
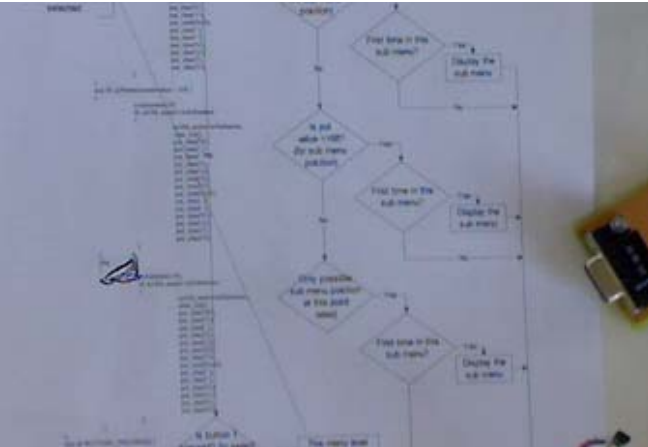
These wristbands have the same idea than the teenagers' friendship bracelets. The wearers exchange parts of the wristbands with each other. Similarly like they are exchanging the friendship bracelets as expressing their social peer group.

The style of these is rock and these look like stud wristbands. Friends have friends' studs and each presents one friend.

When the friend is close enough, for example at same beach, mall or festivals, his or her stud will glow certain colour in other friends' bracelets.

neilo!







Topic -08

- Co-experience in cars: how to improve interaction between children and parents in the front and back seats without sacrificing safety?

- Lots of new technologies in cars, including entertainment
- Driving contexts vary: aims, road conditions, fatigue, social dynamics..
- Design question: how to ease interaction

- Process:
 - lectures, Ilpo, Jussi Mikkonen (March, April) and mullin' thru readings
 - 1-week user study (March)
 - conceptual phase, scenarios (early April)
 - Detailed concept design (early April)
 - Building prototypes (April)
 - flowcharts, block diagrams
 - programming, physical prototypes
 - 1-week field test for prototypes (April)

Resources

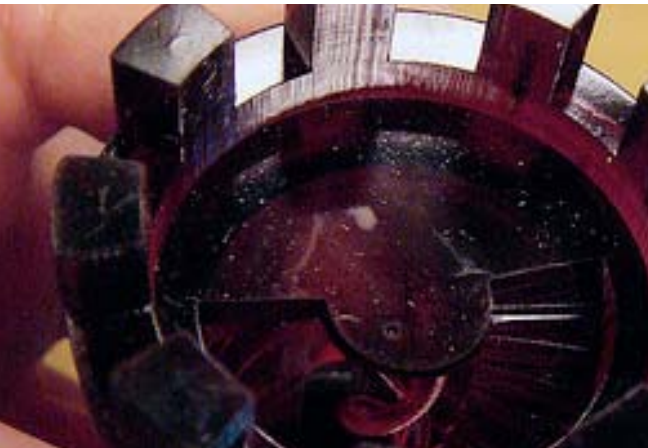
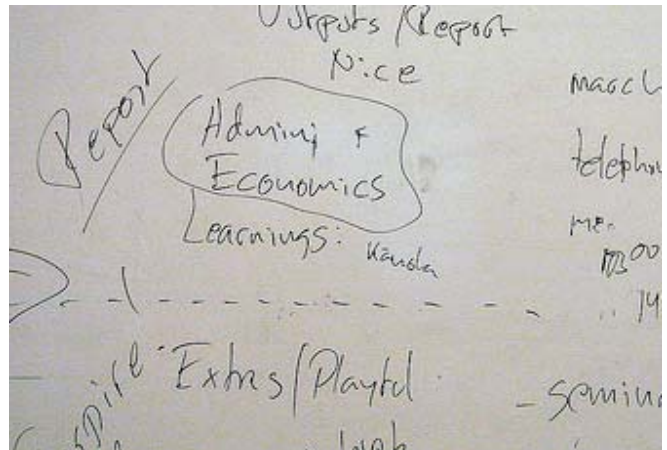
- We bought an old BMW... it'll be in Protostudio
- Social organization:
 - Design tutor: Petra Ahde, but you also talk to prof. Jorma Pitkonen
 - Ele/C tutor: Jussi Mikkonen

Class

- 12 students, work in 3 groups
- groups will be reshuffled 2-3 times
- VTI Technologies
- Car maker involved (most likely Volvo) user experience group in Gothenburg

Living Lab

- We're also a Living Lab in a Nordic called Ludinno
 - better resources
 - careful documentation



- we've got lots of new technologies 1
 - laser cutters, new molding technic

Questions?

