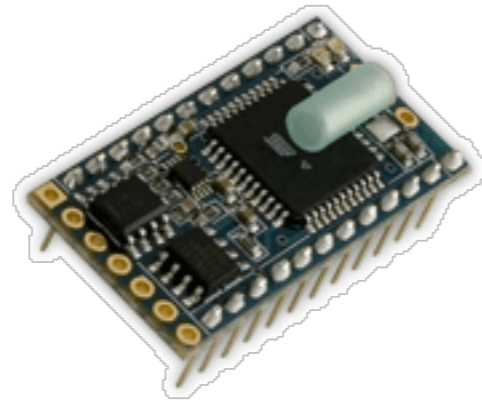


Sketching with Hardware



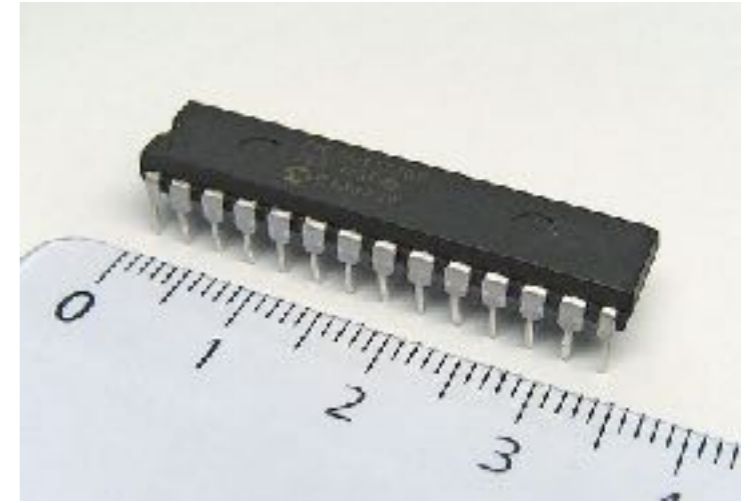
basic stamp



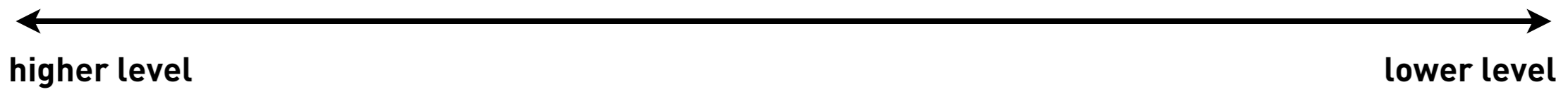
bx 24



basic atom



pic



Assembly



Atmel AT Mega 328



Raspberry Pi



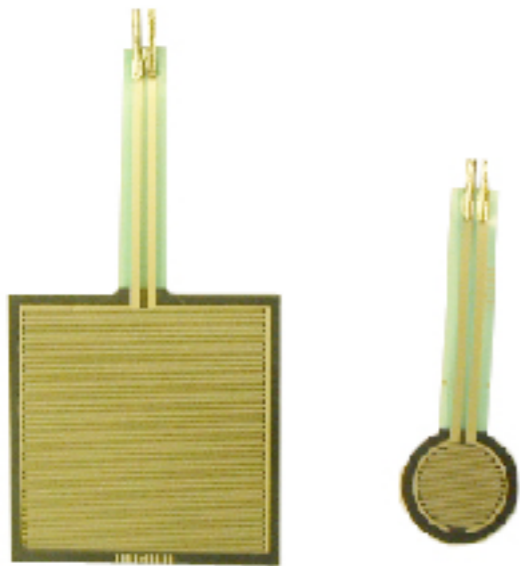
Thermistor



Bend Sensor



PIR Sensor



Force Sensor



Potentiometer



Magnet Switch



Distance IR Sensor

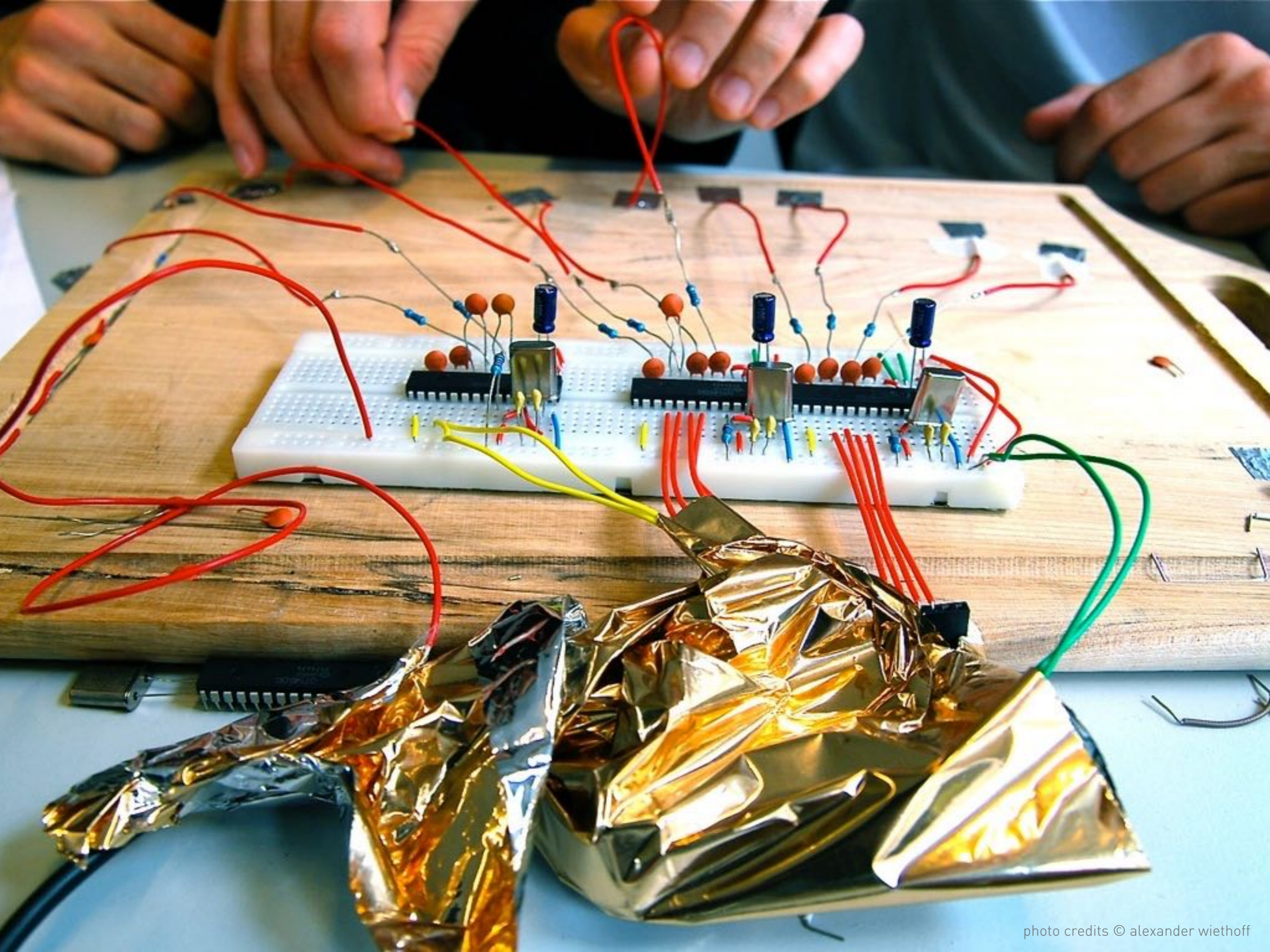


Touch QT Sensor



Ultrasound Sensor



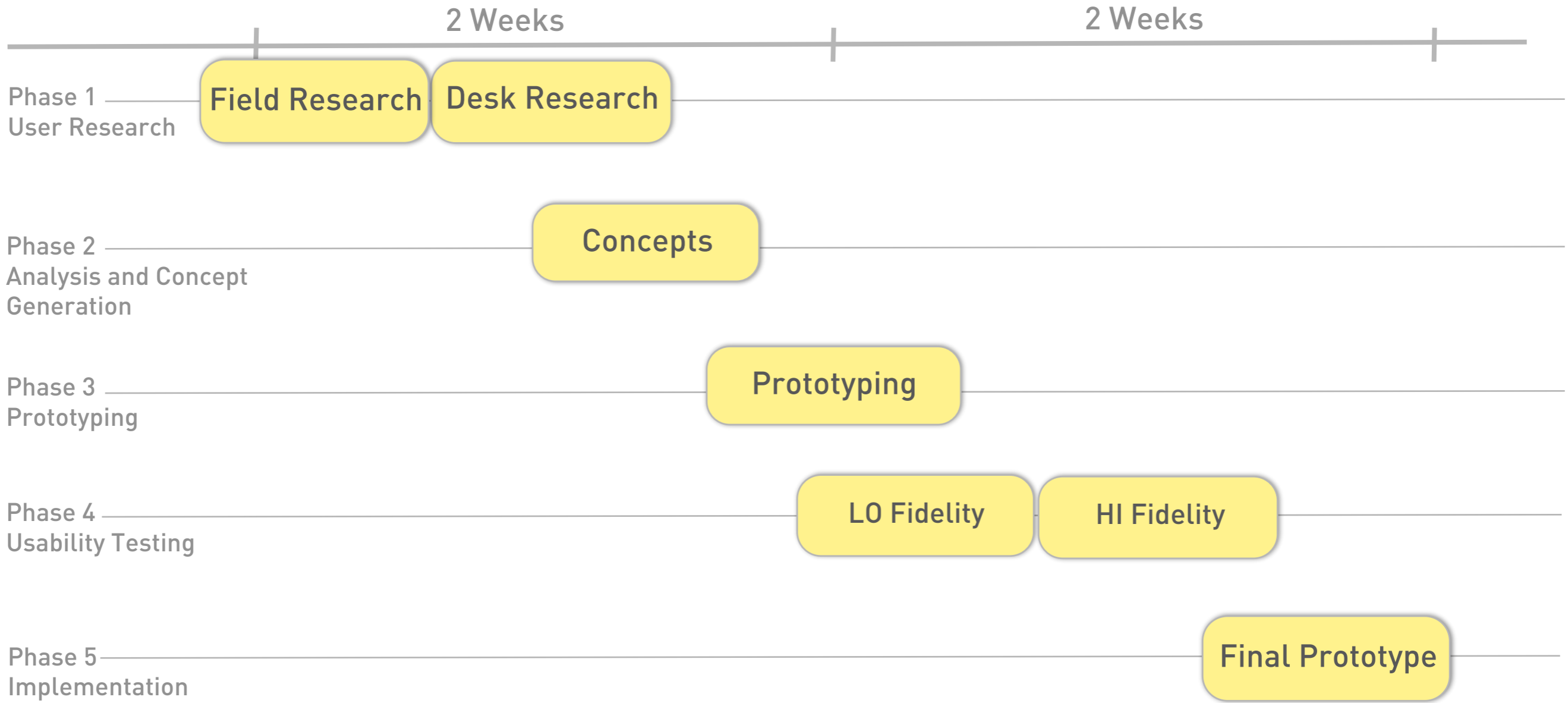




Some Examples
from a school
called
**Copenhagen
Institute of
Interaction
Design
(CIID)**



Some Examples
from a school
called
**Copenhagen
Institute of
Interaction
Design
(CIID)**





- SOCIAL NETWORKING
- OTTUM™
- SCREEN WALL
- E-MAIL - TO - LETTER
- SKYPE-TV
- FAMILY FRAME + POLAROID
- ELDERLY AS RESOURCE (~~GREENHOUSE~~)
- GREEN HOUSE (PET HOME?)
- TIME MACHINE
- STORYTELLING DEVICE
- MEMORY-TRIVIA

ELDERLY EXP. NANNY

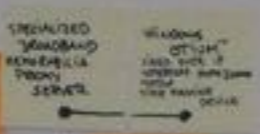
CHARGE ORDER

EXCURSIONS

SCREEN WALL

OTTUM

UI
- interface
web portal
for the
elderly



TV channels
elderly
focus
OTTUM
PROOF

EMAIL

TO: [unclear]

FROM: [unclear]

DATE: 1-8-08

RFD
DISTRICTOR



MEMORIES

- 2 photos

- 1 video

STORYTELLING

make
storytelling

See through
walls from
video chat

Screen wall

video chat

changing
walls
(walls turn
into streets)

with
POLAROID

SKYPE-TV

PICTURE
FRAME
+
POLAROID





by Social studies!



THE MACHINE

... ..

THE TINY GARDEN

... ..

SOCIAL NETWORKING

- SCREEN WALL
- E-MAIL - TO - LETTER
- GOOGLE TV
- FAMILY DEARBY - PHILADELPHIA
- BLOOMING AS "EXOTIC" (GARDEN)
- SCREEN HOUSE (KEY VALUE)
- TIME MACHINE
- INTERESTING DEVICE
- MINOR "TODA"

THE TINY GARDEN

... ..

THE TINY GARDEN

... ..

... ..

... ..

... ..

... ..

... ..

... ..

A collection of numerous sticky notes in various colors (orange, yellow, pink) scattered across the wall. Some notes contain text like "THE TINY GARDEN", "KEY VALUE", and "SOCIAL NETWORKING".



as
a bit



He noticed that his neighbor Helga often get visits from her grandchildren. Apparently they look at old photos, but the album looks a bit strange.



One day he asks Helga what kind of photo-album it is, and why she hides out so interested in it.



She tells him when the photo-album opens it's one kind of modern device that has a screen instead of paper pages.



"Oh, when there is no screen over the photo album it's like a magic screen that can be touched."



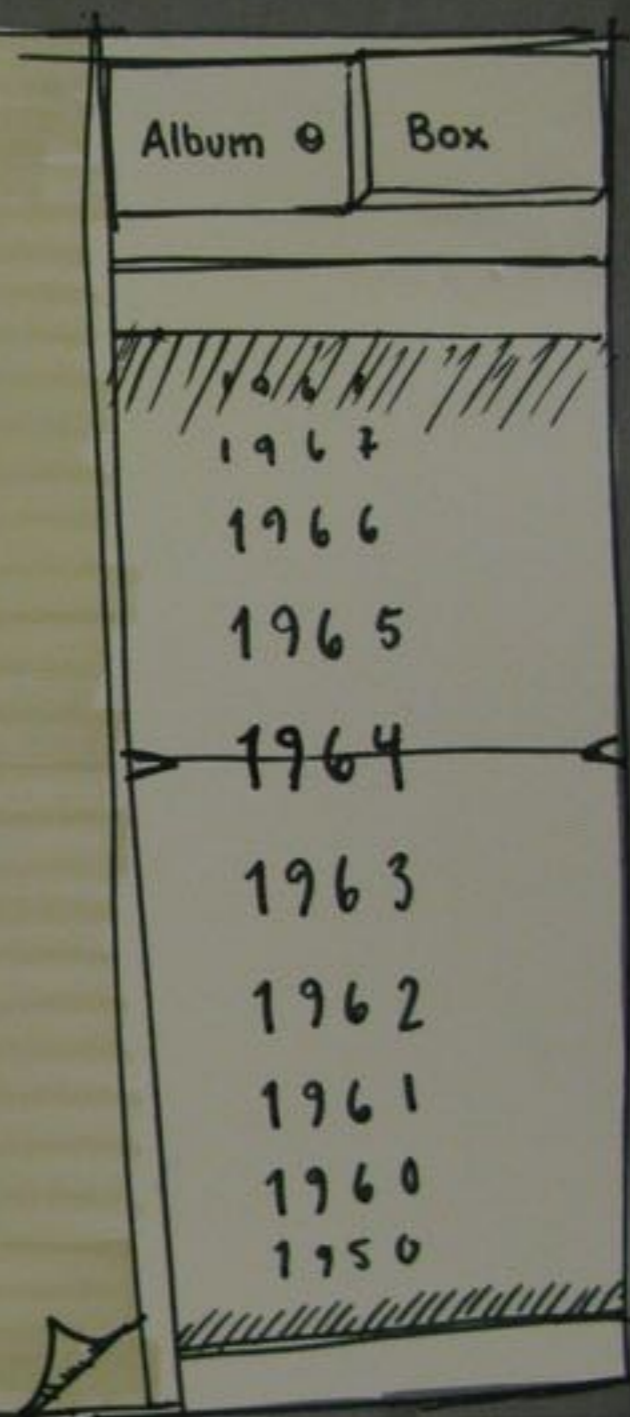
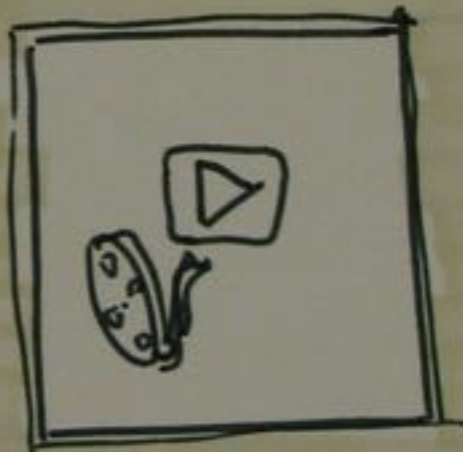
The photo album is a magic screen that can be touched.



The photo is showing Helga's husband on a vacation in Norway 1964. The photo covers the whole screen, so no other buttons can be pressed. She touches the photo again, and it shrinks to its original size.



"So you have personal photos in it? But why didn't I also see a photo from Blåfjorden in there?" Albert asked.

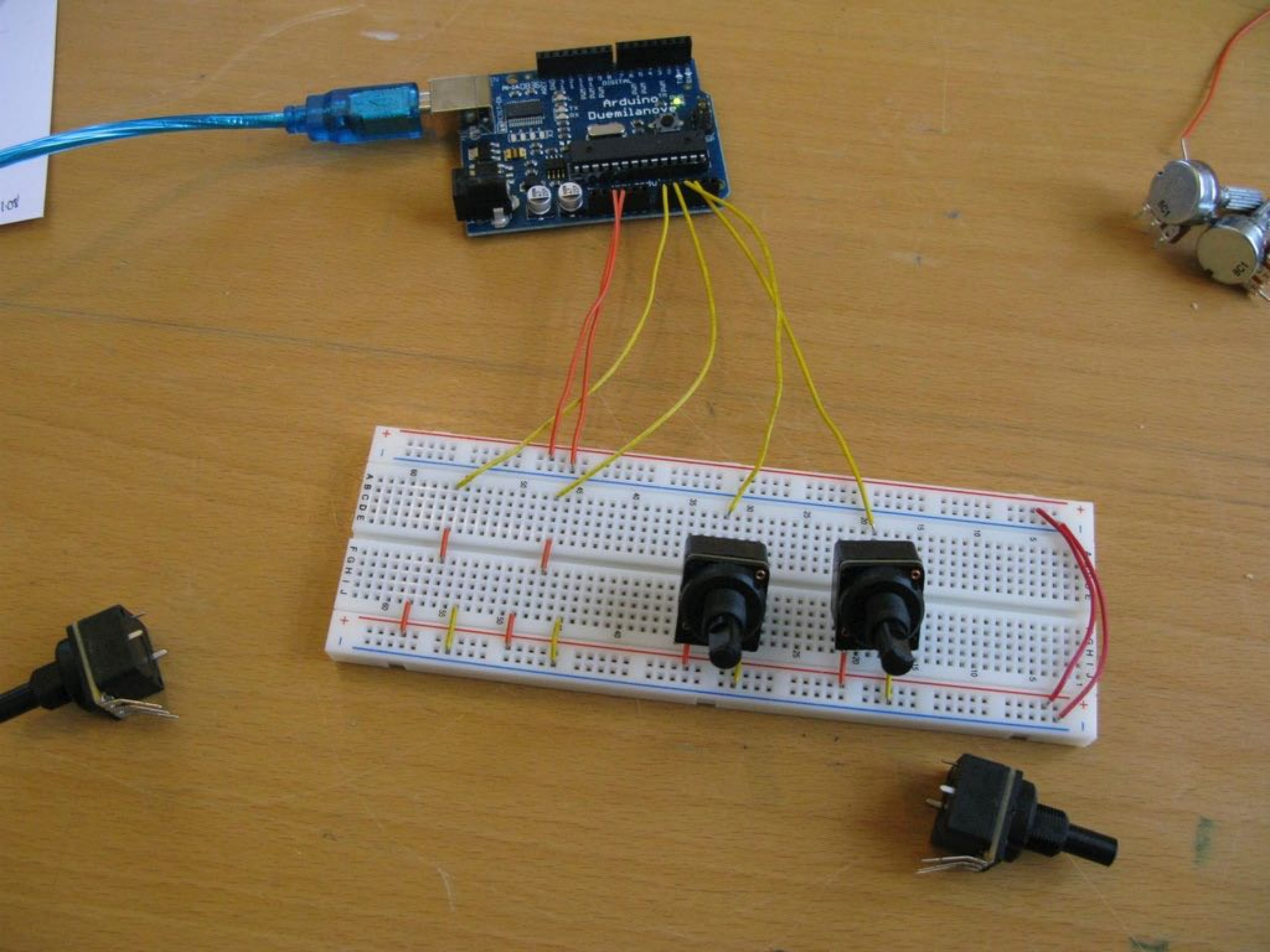


On the ~~left~~ right side of the screen is something that looks like a big wheel. Helga puts her hand on the screen, where the wheel is, and moves it up. The wheel starts rolling and numbers representing years start moving. When the year 1964 is centered, she removes her hand.











Viseaften
Journalistforeningen
1968, Music

1965 1970 15 Favorites





Viseaften

Journalistforeningen

1968, Music

198

Favorites

De



What a lovely war

Glenn Gauer

1978, Radio Theater

1975

1980

19

Favorites

Do

The image shows a vintage-style music player interface. The central display is divided into two sections. The left section shows a CD cover for "OH! WHAT A LOVELY WAR" by Glenn Gauer, featuring a red background with musical notes and a satellite dish. The right section displays the title "What a lovely war", the artist "Glenn Gauer", and the year "1978, Radio Theater". Below the display is a navigation bar with buttons for "1975", "1980", "1985", "Favorites", and "Disc". The player has four gold buttons on the front panel.

OH!
WHAT A LOVELY WAR

What a lovely war
Glenn Gauer
1978, Radio Theater

1975 1980 1985 Favorites Disc

Thanks for your attention !

Tutorials

Physical Computing Intro

<https://itp.nyu.edu/physcomp/>

Arduino Tutorials

<https://www.arduino.cc/en/Tutorial/HomePage>

Physical Computing w. Raspberry PI

<https://www.raspberrypi.org/learning/physical-computing-with-python/>

Adafruit Hacking Tutorials

<https://learn.adafruit.com/>

Keyboard Hacking Tutorials

<http://www.instructables.com/id/Hacking-a-USB-Keyboard/>

References (books)

Bill moggridge: designing interactions

Publisher: The MIT Press; 1 edition (October 1, 2007)

ISBN-10: 0262134748

Bill buxton: sketching the user experience

Publisher: Morgan Kaufmann (March 30, 2007)

ISBN-10: 0123740371

Don norman: the design of everyday things

Publisher: Basic Books (September 17, 2002)

ISBN-10: 0465067107

Kevin mullet: designing visual interfaces

Publisher: Prentice Hall PTR (December 15, 1994)

ISBN-10: 0133033899

links: www.dkds.ciid.dk

www.medien.ifi.lmu.de

www.arduino.cc

http://www.useit.com/papers/guerrilla_hci.html