Internet of Things
Showcase Introduction

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During Project Presentations

- (yes, YOU have to work during the lectures – even if you watch later – do yourself a favor)
- While following the short presentation, write down keywords of
  - application domains,
  - technologies (also programming languages and platforms),
  - and devices used
    → notes later (as markdown) into personal git-repo (linked from main document) and in-class word cloud
PhD: Configuring eHome Systems
Aachen → Tartu, Estonia

• At that time:
  – Ubiquitous computing
  – Actor/Sensor Networks

• (Now: IoT)
Videos

• smart-switch video
• extra-tour video
DIY Remote
Rainwater Management by Smart Communities

- Support disrupted communities
- Build locally relevant products
- Teach tech and craft skills for making them
- Show affordable way to source parts
- Inspire communities
- Help the community
- Support urban development
Demonstration Video
Virtual Library

- Library in a pocket (content and chat over wifi)
- For places with little infrastructure and no internet → still everybody has phones with wifi
- So far based on https://piratebox.cc/
- Potential switch to https://freedombox.org/

Images:
- raspberrypi.org
- wikimedia
Going Artsy: IoT Owl

→ video
S.H.A.S.T - Sistema Habitacional para Abelhas Sem Teto 2.0

- Bee awareness building arts project
  

- → video
Digital Identity/Interactive Mural
Digital Identity Video

- https://vimeo.com/288832742
Artificial Window (youtube.ulno.net)
What have you found?

- Let’s do a wordcloud on mentimeter together
- Vote here: https://www.menti.com/84z5t9ed6u
- Finish notes of short presentation, keywords of
  - application domains,
  - technologies (also programming languages and platforms),
  - and devices used
- Remember: notes later (as markdown) into personal git-repo (linked from main document)
You will learn about...

- Raspberry Pi
- Arduino
- Esp 8266/32
- Firmware (flashing, update, deployment)
- Sensors (temperature, air and soil humidity, PH value, turbidity, smoke sensor, …)
- Actors (Lots of leds, displays, servo motors, relays, solenoids, ….)
- Systems (architecture, integration, network, deployment)
- The Internet of Broken Things (IoBT)
- Energy management
- Javascript
- Python
- Arduino C++