

404 – Bengt Lüers, Marius Wybrands

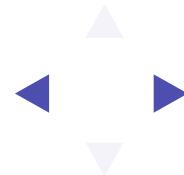
# LightWatch



A wearable light display for body stress.

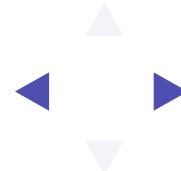
# Task

- extend a watch to an interactive light display
- derive stress level from sensor data
- correct stress level via user input
- visualize stress level using RGB LED ring



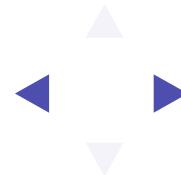
# Progress

- done: explore feasibility
- done: evaluate user input modalities
- done: explore sensor input modalities
- **now: build prototype**

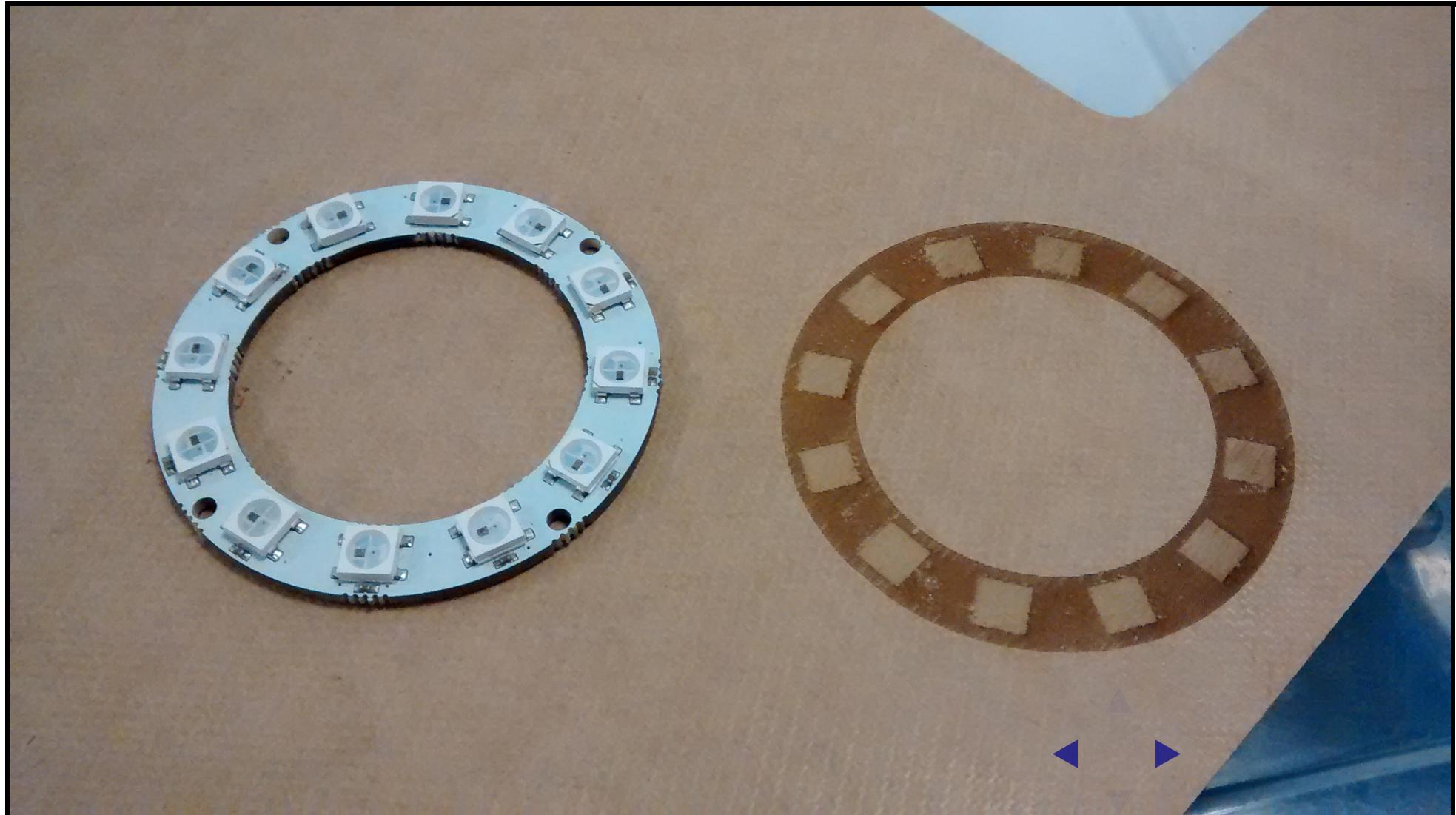


# Hardware Concept

- 1000 mA LiPo
- ATtiny85
- Pulse Sensor
- Light Sensor
- Potentiometer
- RGB-Ring

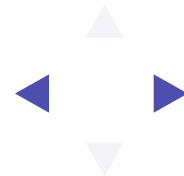


# The Laser Cutter's Last Work



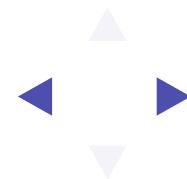
# Fitting the Watch

- cut holes into watch case and wrist band for wires



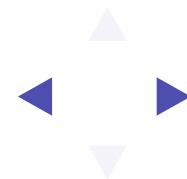
# Poti on Cardboard

- problem: unreliable readings



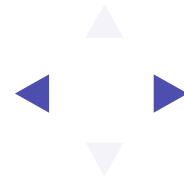
# Poti on Hardboard

- solution: added support structure

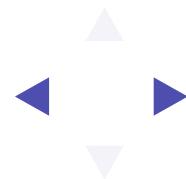


# Cutting the Poti

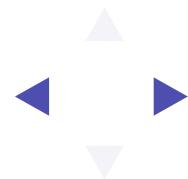
- to minimize overhang



# Hello, ATtiny!

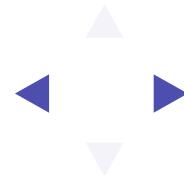


# LED Ring on ATtiny



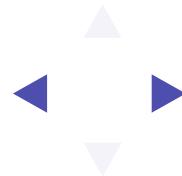
# Interaction Concept

- output: system measures pulse, displays guessed stress
- interaction: user corrects to felt stress using potentiometer



# Outlook

- fit component prototypes into watch



# The End

