Digimon

Week 3 Presentation

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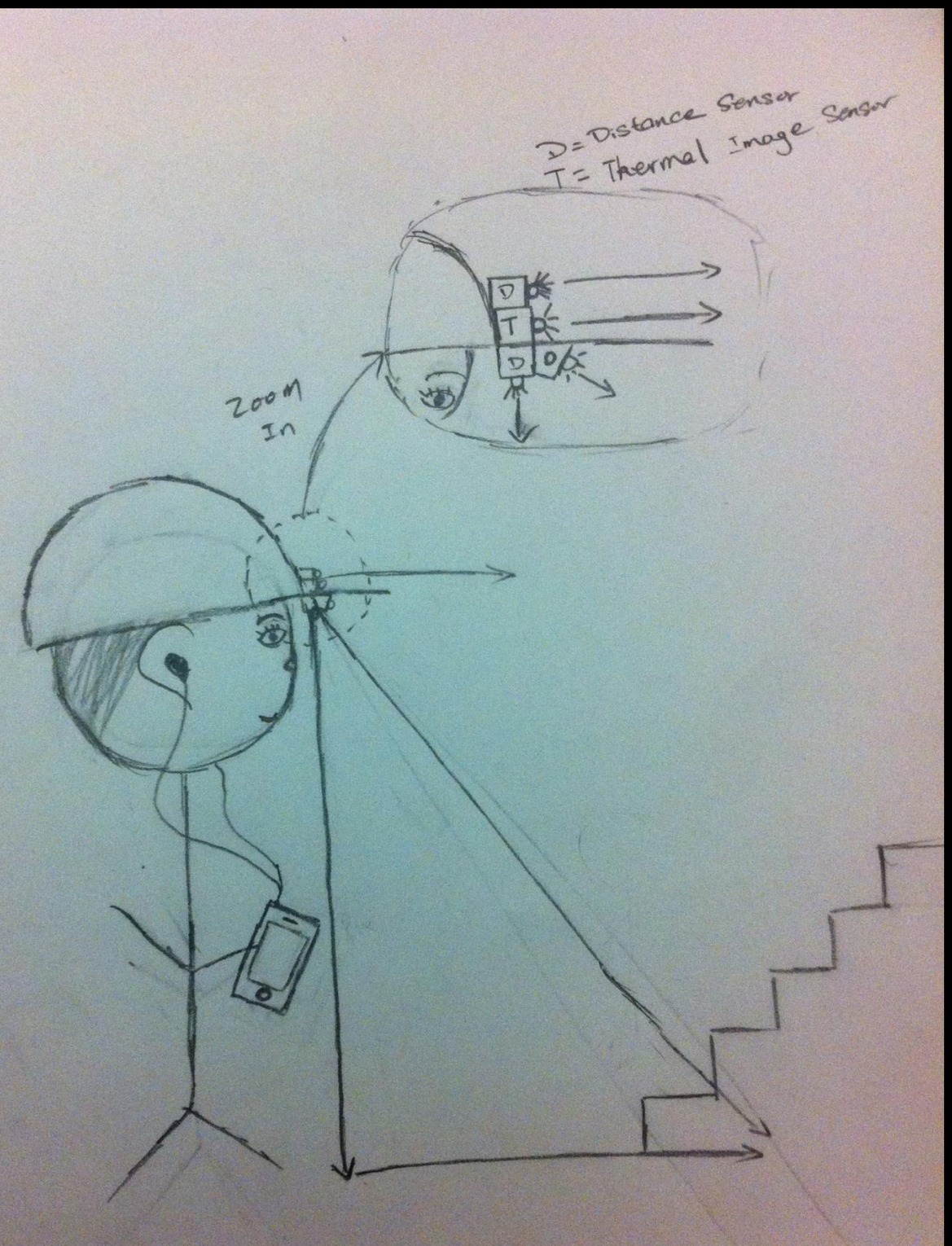
New Project Idea



- Design a hat to help visual impairs
- An android application to do the notify the person

Purpose

- to help visual impairs detect obstacles, human and staircases

Materials

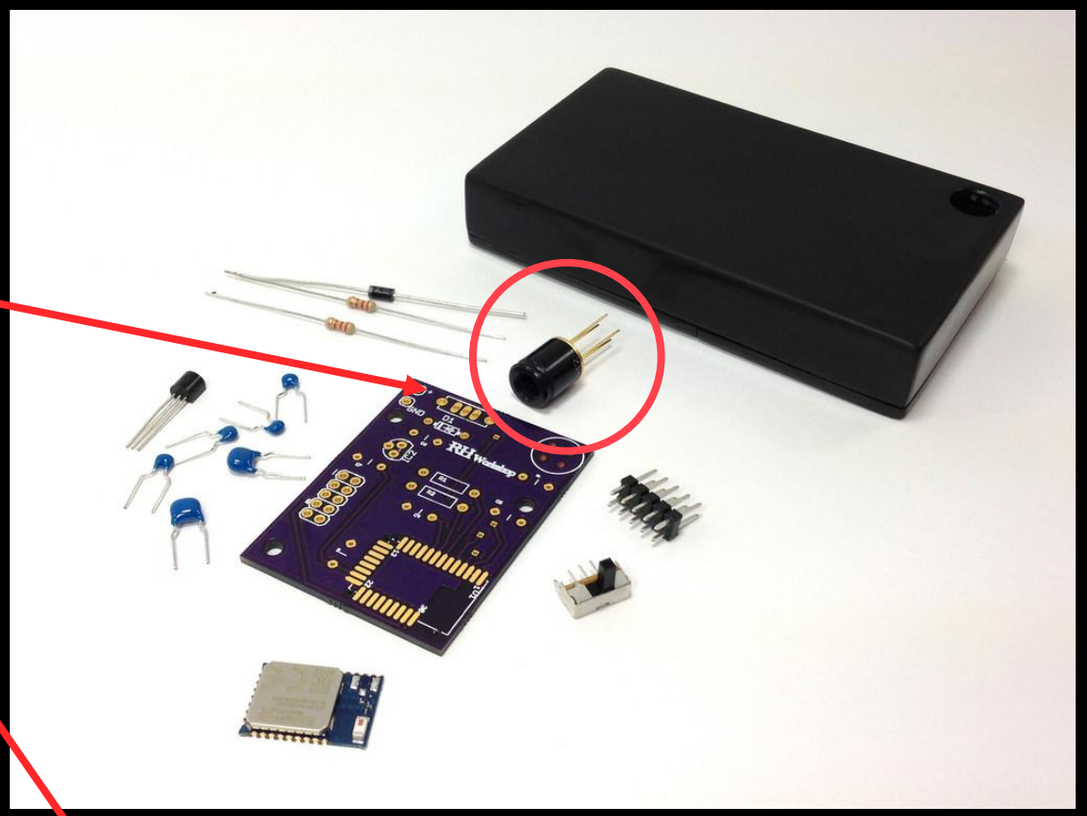
- Infrared Sensors to detect obstacles
- Thermal Imaging Sensor (IR Blue) for human detection
- Hat
- Android smartphone for voice output

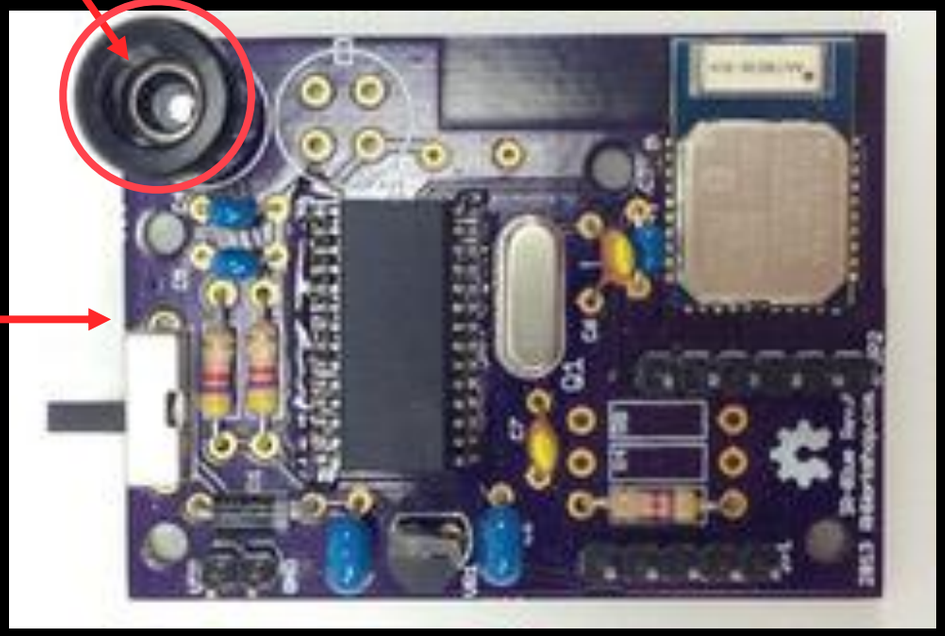
Weekly Progress

- Focused on human detection sensor

Thermal Imaging Sensor

- Thermal Array Sensor
- IR-Blue fully assembled





IR-Blue - Thermal Imaging

- 64 Zone Infrared Temperature sensor
- The sensor is factory calibrated for -20 to 300 ˚C (-4 to 572 ˚F)
- Sensor Field of View (FOV) 60˚ by 16.4˚
- Dual mode Bluetooth 2 and 4 wireless connectivity for Android and iPhone iOS devices.
- PC, Mac or anything that supports Bluetooth can be used with your custom application.
- Uses 4 AAA batteries

The usable distance of the sensor is based on the Field of View (FOV). Each zone or "pixel" has a FOV of 3.75˚ x 3.75˚. At 1 meter the pixel shows the average temperature of a square 65mm x 65mm and at 10 meters it would be 65cmx65cm. In inches - at 12 in the square would be about 0.78 in x 0.78 in. At 30 ft it would be almost 2ft x 2ft.

http://www.kickstarter.com/projects/andyrawson/ir-blue-thermal-imaging-smartphone-accessory

Software

- FIR Sensor - Open Source Thermal Image Processing Application