

# NEUROTOUCH MEETING MINUTES

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3 October 2016

Team Meeting

## **Attendance:**

*Team:*

1. Brendan Souvenir
2. Christina Gibbs
3. Brooke Deans
4. Matt Harlow
5. Mazen Aljawi

**Start Time:** 8:00 AM

**Location:** EP 414

## PRE-MEETING PREP

1. Be ready to pick sensors

## CURRENT BUSINESS

1. Brendan: presentation of sensors
  - a. Photoelectric Sensor- Criteria: Low voltage, measures distance, 1mm precision.
    - i. Balluff photoelectric distance sensor bodo001h: large, >\$600, polarity protector, 100-150-mcm, 30V, reads in 100mm-600mm
    - ii. Omron zs series: hlds60, reflection up to 600mm distance. Visible laser 16mm, resolution is 8mcm, good sample rate, cable length can be 0.5-2 meters. Weight: 800g dimensions:75mm-120mm
    - iii. Ultrasound would be possible: Omron ultrasonic, distance, 50-500mm, also expensive, does have calibration technique. Dimensions: length of head 114mm, width 36mm. Would need to order conversion cable.
  - b. Force Sensor:
    - i. Honeywell: FSA series lots of options: good sensitivity, different output options. (\$
    - ii. \$665 model 13, is perfect for our design but not the reasonable price range.
    - iii. FSS Series: low profile force sensor: super small. Can't take more than 20N- not a problem. (\$60-70)
  - c. Raspberry pi board: \$35
  - d. Memory board: unknown
  - e. Microcontroller with super high sample rate: unknown
2. Portfolio, link on webpage, due tomorrow.
  - a. Reviewed grading sheet and divided tasks
  - b. Brooke: Project Timeline (Gantt Chart) and Freehand Sketches
  - c. Matt: Design Goals and Specs & Constraints
  - d. Mazen: BOM and Budget

- e. Brendan: Analysis of Alternatives BOM
  - f. Christina: Team Meeting Minutes and Project Learning Summary
  - g. Not included in review because of lack of project development: System Diagram, Engineering Modeling, Drawing Package, Manufacturing Assembly Plan, Experiment Design, and Technical Data Sheets.
3. Meet Wednesday to work on SolidWorks design? Maybe two designs- one for the large laser sensor, one for ultrasound probe?

#### FUTURE BUSINESS

- 1. Logbook review tomorrow
- 2. Do Portfolio Assignments. Brooke will provide binder
- 3. Brendan and all keep up on sensor research
- 4. Tentative Wednesday SolidWorks drawing started.

**Meeting Adjourned: 9:10 AM**