

NEUROTOUCH MEETING MINUTES

22 September 2016

Client Interview

Attendance:

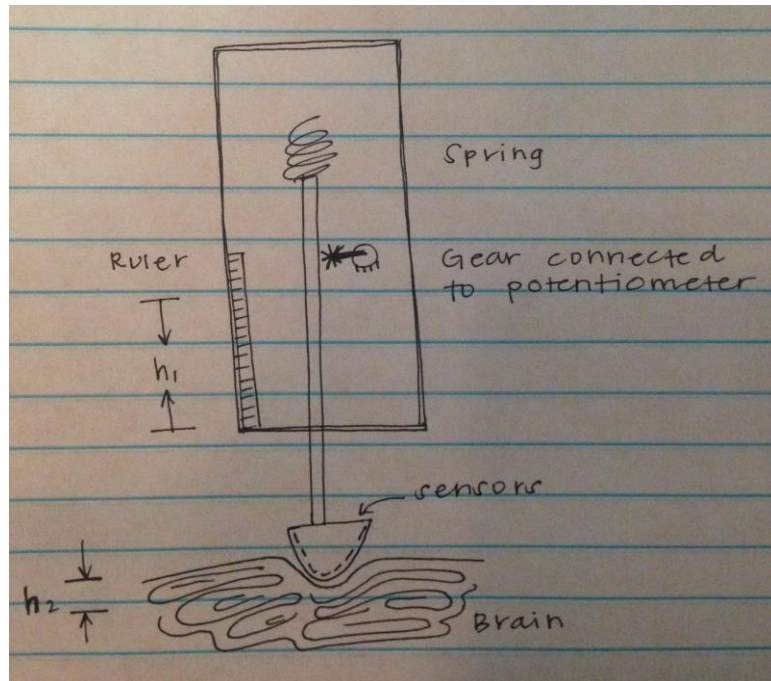
Team:

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

Clients: Dr. Mike Maughan
and Dr. Bryn Martin

Instructor: Dev Shrestha

Start Time: 4:30 PM



QUESTIONS:

Biological:

1. Size of hole to cut into skull?
 - a. Pinky tip size
2. Will the brain vein pulsations affect the device readings? If so, how to compensate?
 - a. Deal with this potential problem later. Get working prototype first
3. For the depth of brain tissue indentation, could we use skull as anatomical reference point?
 - a. Not ideal, use brain initial position as reference.
4. Sterilization idea: plastic "sleeve/wrap" on the end effector?
 - a. Deal with this potential problem later. Get working prototype first
5. Is there a typical cancerous part of the brain? What is the most minimally invasive technique?
 - a. Deal with this potential problem later. Get working prototype first
6. Does the angle matter when touching head?
 - a. Deal with this potential problem later. Get working prototype first

Mechanical:

1. What display want with device?
 - a. Would be nice, but deal with this problem later. Get working prototype first.
2. In what order of magnitude will measurements be taken?
 - a. This is something we will find out. Would like accuracy to the nearest millimeter.
3. What are physical constraints/features?

- a. Must be hand held, light weight, accurate, highly sensitive.
4. What material of this device needed to be? Plastics/metals?
 - a. For first prototype, just use what is the cheapest and available material in shop.
5. What is the end effector made out of?
 - a. Material with known mechanical properties that will not deform when in contact with brain.

Electrical:

1. Sensors on the inside of the probe?
 - a. Deal with this potential problem later. Get working prototype first
2. Results on computer or on device?
 - a. Computer first, device reading would be a nice addition but not necessary

General:

1. What are client's exact needs so we know exactly what to include?
 - a. Want a prototype to start making measurement asap
2. How long can the user wait without the results?
 - a. Less than ten seconds
3. What is needed for the first Snapshot Day?
 - a. Poster presentation
4. IP safe for Wikipage?
 - a. Not addressed
5. Budget
 - a. 3000. Deal with Dr. Martin Directly
6. Formula analysis
 - a. Poisson's ratio: 0.3-0.5
7. How will we test device
 - a. Pick three polymers with known stiffness.

Meeting Adjourn time: 5:30 PM