**Group Progress Report**

**Group**: Gauri Prasad, Jocelyn Corey, Tim Hoer

**Project**: Needle Localizer

**Date: 12/2/17**

**Goals for the past week** (copied from last progress report)

1. Continue to prototype metal detector circuit
2. Build smaller search coils and test feasibility of circuit
3. Research materials for the device, particularly the sheath.

**For each goal above, comment on your progress**:

1. We worked with Matt Brown to improve our CAD design for physical manufacturing next semester and order various parts to improve our circuit and enclosure
2. We built a coil of the necessary size for the circuit, but we could not get it to function. We contacted the circuit designer for advice and are waiting for the arrival of a ferrite core and some inductors.
3. We found a few medical grade elastomers that may be useful for the handle, but we need to do more research on the materials.

**Goals for this week**:

1. Complete the final oral presentation for our prototype and obtain feedback from our client
2. Finish any necessary tests to prove feasibility
3. Begin our final written report for the semester.

**Are there any difficulties with which you need assistance?**

Currently we are working to make our coil small enough and still have the correct range at the same time. We are going to try a few methods suggested by the circuit designer Teemo. If those do not work, we intend to contact some of the ECE 270 professors who specialize in electromagnetics to help brainstorm for the coil.

**Other comments:**

N/A