Weekly Update

Date: 10/14/2013

Project Name: Transradial Prosthetic Arm

Group Number: 15

Group Members: Kendall Gretsch, Henry Lather, Kranti Peddada

**Current status of project:**We have thought of five different design ideas: 2 of them are body-powered devices and 3 are externally powered. One of the body-powered devices uses the up/down and forward/backward movement of the shoulder with the transradial limb difference to initiate flexion/extension of the entire hand, just the index finger, or just the thumb. The other body-powered device uses the forward/backward movement of the shoulder and bending of the elbow in the arm with the limb difference to activate flexion/extension of the hand and just the thumb. Two of the externally-powered devices use an on/off switch on the prosthetic arm the patient can press to trigger a motor that spools a cable connected to the finger joints. The third externally-powered device uses a sensor to detect the displacement of the shoulder in both the up/down and forward/backward direction to activate a motor to open/close the hand.

**Work planned for next week:** We will meet with our mentors to discuss these design ideas and get their input. We will also continue to brainstorm more ideas. Having our final design selected by the end of the weekend/early next week is our goal.

**Anything needed from client or TA or instructor to continue work:** We would like to get feedback from our mentors on our design ideas.