Work Completed

This last week our team spent time determining how to split up any remaining tasks to be done on the easel. The physical assembly of the easel is nearly complete. The only remaining parts are cleaning up the welds and installing the wiring which will begin very soon.

I spent a significant amount of time researching diodes to be used for the limit switches on the horizontal motion motor. Unfortunately, there were thousands of choices to search through and narrowing the selection down proved to be fairly time consuming. I consulted with Dr. Northrop to aid in the process. His help was much appreciated. I also acquired two limit switches which will be used in the circuit. The limit switch design was also tested and proved to be quite effective.

We also submitted a purchase order for a power supply. The supply we chose is manufactured by a company called MeanWell and will supply 150 watts of power to the circuit which is more than sufficient. Once this supply arrives we can enclose it along with the relays and electrical components and wire the easel.

I also made a trip to the store and purchased a number of supplies for wiring the easel. Two choices of wire for the easel were selected and we will decide which is more appropriate once the wiring begins. Both choices can be see in the picture showing all
the supplies purchased. Lastly, I have decided to use a serial cable to connect the joystick to the easel. Seven wires need to travel from the joystick to the easel and this will be an efficient and organized way to manage this.

Figure 1: Electrical Supplies Purchased

Figure 2: Limit Switch and Diodes
Future Work

Over the next week we will be continuing our efforts to complete the easel in its entirety. We are looking forward to the arrival of the power supply, which will be one of the last major components needed to complete the project. As Frank and Adam finish the easel frame by grinding down welds and attaching the canvas clamp, Jackie and I will be wiring the easel and power supply, and also attaching a light for the easel. We will need to purchase a cord which we can use to power the easel.

Also we will be making finishing touches on the easel as far as cleaning it, and possibly painting it. Rubber feet will be added to the base to prevent help prevent it from moving and also scratching or damaging any surfaces.

Project Review

Our project is continuing to make significant progress. The last few weeks will prove to be demanding; however we are fairly confident that we will be able to complete the project as scheduled. As a whole, we have consistently shown dedicated team work and we are confident in our work.

Hours Worked

Around 4-5 hours was spent this week researching appropriate diodes and limit switches for the easel that were capable of handling the required current. Testing the limit switch and diode circuit took roughly an hour. Approximately 2-3 hours was spent traveling and purchasing supplies for the easel. Lastly, we spent around 3-4 hours finalizing our power supply choice and calling companies to determine whether it was in stock and the price it would cost to obtain. Total for the week is around 12 hours.