**Project Identity**

Monitor Lift & Paint Cap Remover Project

Progress Report #7- Katie Zilm

Week 8: October 26- November 2

**Work Completed**

**Monitor Lift Project**

The monitor lift project neared completion this week. The past weeks have been spent building and assembling each component of the monitor lift. This week, those pieces were all brought together. First, the wall mount was secured to the mount support by use of three 5/16” bolts. Measurements were taken and the wall mount was centered so that when the 27” monitor was mounted, the monitor will sit about 0.75” above the desktop when the actuator is completely lowered. It was very important that the wall mount be level. Notice the level on top of the wall mount in the picture to the left. The bubble is between the lines indicating that the wall mount is indeed level (and therefore the monitor will be also when it is on the lift).

Next, the brackets that would be used to secure the guide rails to the platform were fastened to the guide rail supports. Three holes that coincide with the holes in the brackets were drilled into each side of the guide rail supports. The rear brackets had to be cut shorter so that they would fit on the platform. The sides that were shortened only had one hole after they were cut so another hole was drilled into them for better security. The brackets were bolted to the guide rail supports (this can be seen somewhat in the picture above).

The brackets that are attached to the guide rails were then attached to the mount support. Two 5/16” holes were drilled on each side of the wall mount that coincide with the holes on the brackets. The brackets were then secured by inserting them through the face of the mount support, through two
locking washers, through the bracket and then fastened with a nut. Notice the gap created by the washers between the brackets and mount support. This gap prevents the mount support from riding along the guide rails or binding with them.

The guide rails were then secured to the platform. The holes were drilled in the platform to coincide with the holes in the L brackets. A large L ruler was used to be sure that the rails would be secured to the correct spot (the mount support needed to be perpendicular to the platform so that binding will not occur).

The holes in the platform were counter sunk so that the platform would still lay flush with the desktop.

**Paint Cap Remover**

Last week a great deal of the paint cap remover structure was assembled. This week the vise was secured in place. This was done by the means of a 1/4-20 set screw. Next, an enclosure for the motor/circuit area was constructed. A piece of galvanized aluminum was bent into a square U shape. Two holes were drilled into the front of this piece that will allow it to be secured to the front of the piece holding the motor by means of screws.
The circuit was also finalized.

**Future Work**

**Monitor Lift**

- Create an enclosure for the switch.
- Cut off extra platform on left side.

**Paint Cap Remover**

- Secure enclosure on base.
- Build circuit on small protoboard.
- Cut off current lever and build larger, more user friendly one.

**Project Review**

**Monitor Lift**

The monitor lift is essentially finished. Everybody has done a great job working together to get work done in the machine shop.

**Paint Cap Remover**

The team has done a great job this week. Although more time was focused on the monitor lift, the paint cap remover project was not forgotten about. The paint cap remover is on schedule to being finished on time.

**Hours Worked** 20