Work Completed

Monitor Lift Project

Last week we secured the motor base to the platform. On Friday, we ordered a standard wall mount for the Samsung T275 monitor. The standard wall mount is designed specifically for the model flat screen monitor that our sponsor has purchased so we can be sure that it will work/fit properly and securely. Below is a picture of the wall mount.

This week in the machine shop we built the mount support and fabricated the guide rail support system. The mount support is composed of two pieces of ¼" aluminum. Piece #1 is 7 ¼" wide and 22" tall. Piece #2 is 14.4" wide and 9" tall. The two pieces were secured together with four bolts in the configuration that can be seen below (back view).

Holes were drilled into the top center of piece #1 that line up with the holes for the bracket on the linear actuator.

Next, the aluminum struts were cut to appropriate sizes and five hole were drilled in each one. The holes were placed so that they would line up with the holes on the guide rails.
These struts will be mounted to the platform with L brackets. We mounted the guide rails on the struts. Before doing that, brackets were mounted to the center of the guide rails. The brackets will be secured to piece #2 of the mount support in the coming week. The guide rails-mount support system will look like the configuration that can be seen in the two lower pictures.

The final product will look like the picture below.

The monitor will be secured to the front of the mount.
Paint Cap Remover Project

Last week the wall and base were constructed. This week the wall was secured to the base and the piece that holds the motor was secured to the wall. Each piece is made out of ½" thick aluminum. The piece that holds the motor was made out of a rectangular piece of aluminum. A hole was milled out in the center of it for the motor to fit. The motor is held securely in place with a set screw. Next, the wall and base, which were constructed last week, were fastened together and the piece with the motor was secured to the wall with bolts. The clamp was inserted thru a hole in the top right corner of the wall.

Future Work

Monitor Lift
Mount the guide rails to the platform.
Mount the wall mount (when it arrives) to the mount support.
Permanently attach the adapter to the actuator cord.
Create a housing unit for the switch.

Paint Cap Remover
Make longer lever for clamp.
Round off edges of the wall.
Find AC/DC adapter suitable for the motor and hook up to circuit.
Make an enclosure for the motor/circuit area.
Project Review

Monitor Lift
The majority of the monitor lift frame has been built. Once the wall mount arrives we will be able to finish the machining process and add finishing touches.

Paint Cap Remover
The paint cap remover project is nearly finished. A few more components must be altered and added, but we are on track to finishing this project on time.

Hours Worked  14