Monitor lift and Paint Cap Remover

Weekly Report 9
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**WORK COMPLETED:**

Monitor lift:
Because we did not have the real LCD monitor, we have to find an object with a weigh that is equivalent to the LCD monitor. The testing object is the big motor with a weigh of 22lbs. We hung it on the bar that is securely attached to the monitor mount. Before we did the testing, we connected the wire from the linear actuator to the switch and attached the switch to the box. The image 1 and 2 show the shape of the box. Users can move this box within a distance to control it. It is portable and easy to use with a mobile control remote.

![Image 1, 2 – Control Remote.](image)

The testing was done using the DC power supply. We applied 7V (track/dependent). The current drew from the linear actuator was $1.2A < x < 1.8A$. The current does not go higher than 2A. Our AC adapter has a max current of 2.14A, which is not safe. The reason is that the current might increase if they weigh being raised or lowered is above 22lbs. To ensure safety, we decide to get a new AC adapter. The new AC adapter has a voltage of 9V and a current of 4A. We will get a fuse with a value around 3A, to prevent damage.

![Image 3 – Big motor as a LCD monitor for testing monitor lift.](image)
We also cut the bottom platform of the monitor lift, so that it looks fitted and balanced on both side, as shown in image 4 below.

![Finished monitor lift](image)

**Image 4. Finished monitor lift**

**Paint Cap Remover:**
We drilled a hole so that the wire of the AC adapter can go through. We also drilled another hole for the button, pictures are shown below:

![Paint Cap Remover](image)
We cut the ball wall of the paint cap remover so that it has a L shape. The purpose of this is to ease the use of the lever. We decided not to change the lever because it will not look professional as it is right now, and more time will be needed since we are almost running out of time. The picture below show the almost-complete product of the paint cap remover.

FUTURE WORK:
Monitor lift:
- Attach the new AC adapter to the switch
- Implement voltage divider if needed

Paint Cap Remover:
- Implement the circuit, fuse and switch
- Drill holes on the side of the encasement to secure it
- More painting might need to make the device looks nice

TOTAL HOURS: 13