Monitor Lift and Paint Cap Remover
Weekly Report 7 [10/19/07 – 10/25/07]
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Work Completed

Monitor Lift
Dr.Hallowel provided us the model of the monitor that she is putting on order. Upon that information, we analyze the structure of the monitor and redesign our device. To simplify the design, we decide to remove the original a monitor’s mount and purchase another monitor mount. The monitor mount that we chose is compatible with the LCD monitor because of the stand VESA dimension 200x100mm.

The image1 below illustrates the most current and final design of our monitor lift project. The monitor mount will be attached to the horizontal plate, which will be attached to the vertical plate that connects to the linear actuator. We called these two plates, monitor mount support. Each side of the monitor mount support will be connected to the guide rails. The guide rails help to prevent the horizontal movements of the mount support and the monitor, and also to enhance stabilization of the whole system. The guide rails are supported by the two strong bars (struts). We attached the guide rails to the struts using bolts.

Image 1 – the monitor lift system
The image below shows the outcome of our weekly works. We have not attached the stuts to the bottom platform yet, we will do it next week using more L brackets. The L brackets can be purchased at the store, so we don’t have to spend time making it.

Back view of the monitor lift.  
Front view of the monitor lift

**Paint Cap remover**
Instead of the enclosure that houses the motor, we created a plate that we can insert the motor in. This week, we milled out the hole to insert the motor in. We milled out a hole to insert the clamp in. We assemble the motor, the tube holder, the clamp, and the motor plate together.
Future Work
Monitor Lift:
- Attach the struts to the bottom platform
- Attach the monitor mount to the mount support

Paint Cap Remover
- Implement the switch
- Secure the clamp to the wall
- Create an enclosure

Total hours: 14hrs