Weekly Project Report

10/17/2007

Monitor Lift and Paint Cap Remover

Patrick Keating, Dan Zachs, Thuy Pham and Katie Zilm
Monitor Lift
Monitor Lift

- Last week mounted to HDPE square
  - Allowed for smooth mounting to larger base
- This week
  - Mounted HDPE to 3/16in aluminum sheet
  - Dimensions of sheet 2ftX2ft
Monitor Lift
Monitor Lift on Base
Test was done before mounting to base. Strictly to see if Actuator could function, and it did.

Monitor will weigh 23lbs at 6in

Tested 30lbs at 7 inches
Monitor Lift Moment Test on Full Base

- 23 lbs was hung at 6 inches.
  - No flipping of whole unit
- 23 lbs at 12 inches
  - No flipping of whole unit
  - Still sturdy no tendency to want to flip

Tests next week
Paint Cap Remover
Paint Cap Remover

Tested Paint Cap Remover
- More than enough strength to remove cap

Problem:
- As cap is unscrewed created downward force
- Due to fact that cap head held in place and as cap walks along threads it pushes the tube down.

Solution:
- Insert foam piece allows for movement of tube during uncapping and thus allows for cap removal.
Paint Cap Remover
Paint Cap Remover

Clearance Holes on bottom piece
Unthreaded

Threaded Holes on upright piece
(not yet threaded)

Bolts will come from bottom and screw into the threads on the top piece.
Paint Cap Remover

-Mock up of Paint Cap frame

-Held piece will house Motor

-Vice will be mounted above
Future Work

Monitor Lift
- Attach guide rails to stationary wall
- Attach monitor bracket to sliding wall
- Attach sliding wall to guide rails

Paint Cap Remover
- Thread holes and attach upright to base
- Machine motor housing unit
- Attach vice to upright aluminum piece
Hours Worked

- Dan - 14
- Thuy - 14
- Patrick - 14
- Katie - 12