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21M.606 Introduction to Stagecraft
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Midterm Project Proposal

My proposal is a contained, semi-collapsible storage unit. Specifically, its storage capabilities are aimed at school supplies (books, papers, writing utensils, etc). A unique feature of this storage unit is its collapsible portion; the unit has an electronically retractable white board. The board works like an MIT lecture hall chalkboard; it moves up and down as needed by the writer. Also, the entire storage unit is on wheels.

The storage part of the unit consists of a 30"x30"x30" wooden box (using 1.5" thick wood). The front face is open, and the top is slanted at a 30 degree angle (the height dimension in the front on the unit is 30", and the height dimension in the back is approximately 41.5"). See attached diagram for a better understanding. The unit has 8 compartments inside it (all open-ended on the front face). Dimensions of the inside compartments are included on the drawing.

The retractable white board part of the unit is attached to the main frame on the back face. Its main framework consists of a stationary 2"x4" at the bottom (with the 2" side touching the back face and the 4" side in line with the bottom face), a 30"x40" piece of wood parallel to and offset from the back face, 4 2"x2" blocks attaching the 30"x40" to the back face, and two hinged 2"x2" pieces of wood that extend past the top of the unit 40" propped on the outside edges of the 30"x40", each with a perpendicular hinged 2"x2" attached on the inside surface. The perpendicular 2"x2"s attach to each other in the middle when the parallel 2"x2"s are upright. See diagram for more details. The white board is loaded into this frame vertically. While in the frame, the white board is on a two-directional motor-controlled track, utilizing notches on the parallel 2"x2"s as pulleys for the track. The track is made of some to-be-determined durable and flexible string or chain. The white board itself is not permanently attached to the chains; the chains are attached to each other by a thin piece of wood or metal bar, the white board has a hook on it, and the white board is temporarily attached to the

attachment bar for use. This allows the white board to be portable when the unit can't be. The chains are rotated at the bottom pivot point by a battery-operated old hobby-shop motor with a remote control. Pressing the up and down buttons on the unit moves this track up and down, which in turn moves the white board up and down.

The entire unit is on swivel wheels for easy movement. The top of the unit has a groove for temporarily holding markers, the sides of the unit have various marker/eraser/misc holders for longer term storage of these supplies.

The unit will also have several decorations and finishing-touch additions which are to be determined, barring time constraints and unforeseen circumstances. If I have time, I will decorate the unit with the theme 'Lecture Hall', bordering it with lecture hall chair -type fabrics, displaying my room number in bold white letters on the unit, and possibly other modifications.

The idea of the academic storage unit is to create a portable lecture hall which enables presentation and thinking that can't be bounded in a notebook (without the eccentric and/or boring MIT professors doing all the lecturing). The unit also serves as storage for stray books, papers, and writing utensils that would otherwise be on a college dorm room floor.

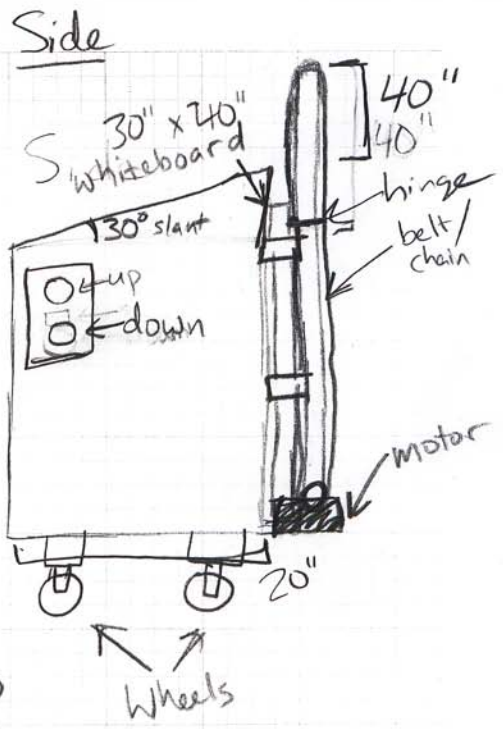
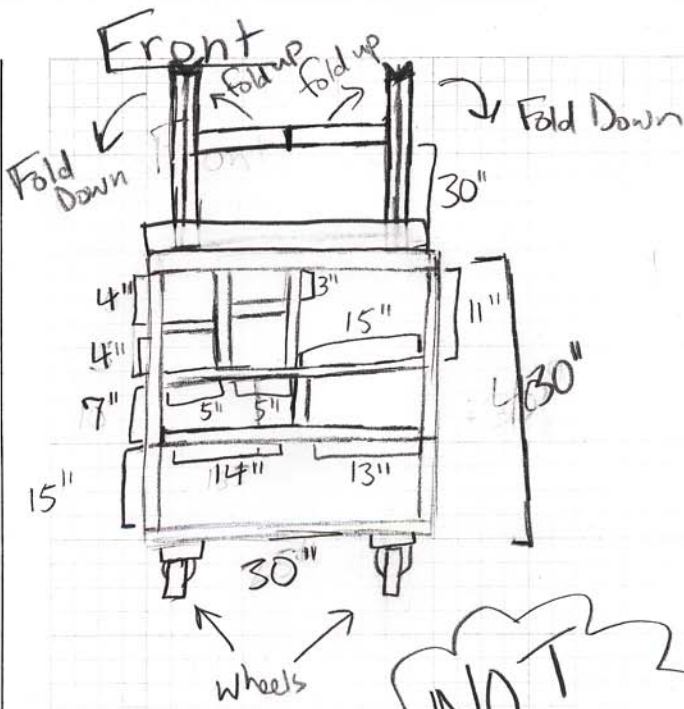
TIMELINE

3/20 - Cut lumber for main frame box

4/12 - Main frame box assembled, wheels attached

4/19 - Retractable white board frame assembled

4/25 – Electronic retractable white board mechanism working, start finishing / decorating



NOT TO SCALE

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