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4.500 Introduction to Design Computing
Fall 2008

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Recitation #6
LASER CUTTER
Professor Larry Sass

A – FILE SETUP

1. Prepare 2D drawing in a CAD program (Autocad, MicroStation, Rhino, etc)
2. Vector drawings can only be done through Autocad on Laser cutter computer
3. Cutting Line weights are associated with Autocad Colors
4. Only first 8 colors available by cutter drivers
5. Copy drawing to temp drive

B – MACHINE OPERATION – LENSE CLEANING

1. Turn on laser cutter and ventilation fan - Switch is on wall
2. Inspect lens of laser cutter
3. Carefully remove three thumbscrews and place in a safe location
4. Slide out lens carrier
5. Clean lens with cleaning fluid and Q Tip
6. Replace lens carrier and thumbscrews
7. If lens is worn email for a new lens.
8. Focus lens (note: if done incorrectly, you will waste material and time, and possibly damage the laser)

C – MACHING OPERATION - CUTTING

1. Place material in bed of cutter
2. Press 'z' button on cutter
3. Using directional arrows position cutter head over material
4. With plastic white focusing tool, the up and down buttons, and the 'select' button move cutter bed to proper distance

D – PLOT SETUP

1. Under plot devices select new laser cutter pc3
2. Press 'advanced properties'
3. Online settings for appropriate cutting settings depending on materials
4. Press OK and if asks to save another .pc3 file say no
5. Press plot
6. Laser cutter db chosen
7. Plot Check
8. Make sure your files are visible in cutter display (press next file and previous)
9. With cover open, press start button and monitor the red laser, making sure the path of the laser is in the proper location and correct scale
10. Plot File
11. Close cover
12. Press Start button
13. Never leave laser cutter unattended