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2.007 Design and Manufacturing I  
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## Milestone #5 – Fabrication of the Most Critical Module

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**Deliverable: About 3 Pages in your notebook deposited to the “IN” side of the crate.**

**Due Date: March 9-13 at the normal times (T, R, or F at 4PM).**

### **DESCRIPTION:**

This milestone centers on fabrication of your most critical module (MCM). In the next milestone after this one, we expect to see a convincing demonstration of the finished module on 16 March.

One of the great opportunities you have in building your module is the chance to consult with the machine shop staff. I would suggest you make an engineering drawing and bring it to one of the machinists. They can help you think through the best ways to make the part you've designed. I think you'll find the staff has more time to help you when the 2.007 sections aren't meeting, such as mornings from Monday to Thursday.

In recent weeks, your deliverables have mostly been documentation in your notebook. Your deliverables will increasingly transition to working hardware. As a result, I expect the amount you write in your notebook might be somewhat less this week. About 3 pages should probably suffice. Your deliverables (both writing and hardware) include:

1. **A solid model of a second part of your most critical module.** Post your SolidWorks Part Document (.SLDPRT) on the Section 01 forum in Stellar. Also, at least one graphic depiction of the part should be printed and pasted into your notebook.
2. **An engineering drawing of a part of your most critical module.** Ensure there is enough information to fully describe the completed part -- dimensions, materials, thread specifications, etc.
3. **The finished part.** Have at least one part of your MCM built by the end of lab on 9 March. Show your section instructor the finished part. Take a picture of it and paste that picture into your lab notebook.

### **OTHER ACTIVITY:**

There are two types of equipment that we have not discussed with you in much detail – the milling machines and the waterjet cutter. These could be a big help to you as your design begins to take shape. Try to get a small group together and request an introductory review of the machines.