

Emerson 101

(or How to Survive 225 Machining)

The following hints are offered to make your time in the Emerson Shop more productive.

Things to bring with you

- Pen and paper
- Calculator
- Safety glasses
- Notebooks
- Part drawings with dimensions
- Clothes you don't mind getting dirty
- A friend to help you double check things and get tools or equipment you need
- Some home work in case it's crowded and you have to wait

Before you start machining

Go through all the steps in your head. If you have questions about how to make something, ask your TA, one of the Georges, or the TA supervisor. Think about how you are going to hold your work for each step, and what surfaces you are going to use as references for other features. Don't be afraid to ask questions about anything.

While you are machining

- Be aware of what's going on around you
- Make sure you are not throwing chips at someone else
- Think about what you are going to do before you turn on the machine
- Make sure it is safe to turn on the machine before you do
- Keeping a (relatively) clean work area will aid productivity
- If you have any questions, ask. That's what the Georges and TAs are there for.
- Measure drill bits before you use them
- Use "sanity checks"
- "Measure twice, cut once"

When you're done

- Clean up quickly so the next group can get on the machine
- The next group may offer to clean up the machine for you so they can get started faster. If this happens, thank them, put all the tools you were using away, then clean up any big piles of chips.
- If no one is waiting, put all your tools away, and clean up the machine. It should be left cleaner than you found it.

While you're waiting

If the shop is crowded, you may have to wait for a machine. Try to make good use of this time. Some options are

- Do some homework. This is a great time to talk to class mates and help each other out (assuming this is allowed by the professor)
- Grab a broom and sweep something. A clean shop makes George happy, and it's important to keep George happy. (Trust me, you don't want to see an unhappy George)
- Clean or organize something. Drill bits, endmills, parallels, collets, and measuring instruments are all good choices.
- It's all about teamwork, let's work as a team to keep the lab clean and organized.