

# Robotics Team Safety Rules

1. Only students certified by Mr. Leeper may use the stationary machine tools in the woodshop (Room S-2). *Only high school students may use these tools.*
2. Only students certified by Kelly McCrystle may use the stationary machine tools in the drafting room (Room S-1). These are the tools owned by the robotics team, and include both milling machines (manual and CNC), drill press and mini-lathe. *Both middle and high school students may use these tools.*
3. The area directly surrounding all machine tools must be kept clean and clear of obstructions.
4. A first aid kit and student medical forms (kept in the pocket on the inside of the closet door) are stored in the Robotics closet.
5. Basic safety rules must be followed at all times when working in either shop area or when working on the robot outside:
  - a. Eye protection must be worn at all times.
  - b. Long hair must always be tied back.
  - c. No sandals or open-toed shoes are permitted.
  - d. Any oil spilled on the floor must be immediately cleaned up.
  - e. Loose fitting clothing must be tucked in or tied up.
  - f. Bracelets, other loose jewelry and neckties must be removed.
  - g. No horseplay around the machines is permitted. Machine tools can be dangerous.
6. No person should work alone. An adult supervisor must be present.
7. The shop areas must be kept clean. It is impossible to maintain a safe work environment if tools and materials are lying about the equipment. No food or drink is allowed in S-1 or S-2.
8. Practice common sense. Most shop accidents are a result of lack of knowledge, not carelessness. Ask a mentor or experienced member of the team for help when you are unsure of what you are doing.
9. No prototypes are to be turned on for the first time unless a mentor is present.

# GUIDELINES FOR SUPERVISION

We are required by the District to have a security-cleared adult present at all times

You may wonder, especially on Saturdays when there already tend to be a lot of other adults around (mentors, faculty advisor, etc.), why yet another adult is needed. It is a courtesy to the volunteer mentors, who are then freer to come and go as needed, and can also focus on specific groups and issues, instead of keeping an eye on everyone.

The basic responsibility of the supervisor is to keep a general lookout for safety issues, and to be available in case of an emergency. Usually you shouldn't end up having to do more than issue an occasional suggestion for a better, safer approach to doing something. If you are ever unsure about the best course of action, talk to one of the seniors or another adult who may be there (mentor/advisor/parent).

## Here's a general checklist of what to do:

- 1) Know where the following items are located in S-1:
  - The Robotics Team Safety Rules (*posted on inside left of closet door*)
  - Team contact and medical information (*in envelope on left closet door*)
  - The team first aid kit (*inside closet*)
  - Photos of who is on the team (*posted on inside right of closet door*)
- 2) Be familiar with the safety rules and procedures:
  - Read and understand the Robotics Team Safety Rules.
  - Extra caution is required whenever moving parts are present—e.g., when power tools are in use, when pneumatics are involved, or when the robot or other machinery is powered up. In these cases, everyone should be wearing safety glasses, and anyone not operating the equipment should stand at a safe distance.
- 3) Be on the lookout for excessive horseplay:
  - We have a good group of students, who aren't malicious or seeking trouble. However, when students get bored and are fooling around, they can get careless.
- 4) Use common sense:
  - If something seems iffy to you, as an adult, it probably is. Some actions may not be endangering a person, but they could result in tool or table damage, which we also want to avoid.
  - If you are ever unsure about the safety of a situation, it is your responsibility as a supervisor to calmly express your concerns to the students involved, ask them to stop what they are doing, and work with them (and mentors or senior students who may also be present) to establish a safer procedure. ***Accidents often happen because people who see an unsafe situation unfolding in front of their eyes are too timid or unsure of themselves to intervene.*** Trust your instincts—even if your concerns are unfounded, ***a little time spent as a group reconsidering the safety of an operation could prevent a serious accident.***
- 5) Please make sure that rooms are clean (robotics supplies put away, table tops wiped off and floors swept), lights are off and doors locked when you leave.

You don't have to be watching everyone all the time, but look around periodically and pay particular attention to younger student groups who have no experienced person working with them. This is a good opportunity to get to know the students—ask them about what they're doing and how it interfaces with what else the team is working on. If it looks like some students are bored or "at loose ends," please talk to one of the senior students (or a mentor) to try and get them engaged more productively in team activities.