

## Safety Plan

### Safety in the workshop

- Around tools
- Around CNC machine
- Around lathe
- What to do in case of emergency

### Safety while/during transportation

- How to keep the robot safe
- How to stay safe in a group
- What to do if you get separated from your group

### Safety in the pits

### Safety in the workshop

While working on the robot we need to make sure that we are safe at all times. That includes Around tools, around the CNC machine and around the lathe. Also what happens in the case of an emergency.

### Around Tools

When working around tools remember the following:

- Have Safety Glasses on at all times
- Keep long hair tied back
- DO NOT fool around with the tools
- Pay attention while using them especially power tools

When using the CNC machine

- Do not alter or modify any machinery, tooling or accessory unless you contact an instructor and obtain permission.
- Review all CNC set up and operating procedures provided.
- Review all CNC programming instructions provided.
- Prepare and review your program carefully.
- Edit your program for safety, format, correctness and clarity.
- It is highly recommended that all programs be verified before the actual trial on the machine. Verification can be by a dry run on the machine, or through a graphic display of the tool path on the controller's screen. Do not operate any machine tool unless you are thoroughly familiar with it.
- Wear safety shoes.
- Secure long hair or loose clothing that could become caught or tangled in the moving parts of machine. Long hair poses an extreme safety hazard around machine tools, and, therefore, must be netted for safety.
- Wear your safety glasses.

- Determine the tools needed and get them ready. Tool length should not protrude too much from the holder. Use only properly sharpened tools. Use caution when changing tools – no interference with fixture or work.
- . Clamp all work securely before starting machine. Only approved materials can be machined. Abrasive dust-generating materials will wear machine Components.
- Do not use compressed air to blow chips from parts, machine surfaces,cabinets, controls, or floor around machine.

#### Around lathe

- Do not wear gloves, rings, watches or loose clothing
- Do not lean on machine
- Do not make adjustments while the machine is operating
- Do not place hands on work turning in the lathe.
- Do not use calipers or gauges on a workpiece while machine is moving.

#### What to do in case of emergency

- Exit building calmly and in an orderly fashion
- Call 911
- Since we work in the same building as fire station 43, someone can run next door to alert the EMTS and the fire-personal

#### Safety while transportation

- While lifting robot be sure you are holding it in a way so that you are not straining yourself and your fingers aren't being crushed.
- Make sure you have someone helping you lift
- DO NOT lift the robot without adult supervision

#### Safety in the pits

- Keep the area clean and tidy
- Don't leave extension cords or wires hanging
- DO NOT use anything that produces a large flame in the pits
- NO RUNNING
- When going to matches call attention to yourself and the robot
- Before-during and after matches be courteous to the other teams... Do not disrespect them

Good sportsmanship is key to a safe and happy competition

If someone gets cut remember:

1. Wear clean gloves or wash hands thoroughly before applying direct pressure to the wound
2. Alert a mentor or the safety captain and call for assistance
3. Lift injury above heart level so that there is less blood flow to it
4. Wrap with gauze or put a bandage on it

If someone gets a first degree burn:

1. Run under cool water not cold.

2nd degree burn:

1. Put bandage or gauze on it DO NOT put ointment on it

3rd degree burn

1. Call 911 and alert a mentor