STEM: Lab Safety

Above all else, safety is the primary concern of this class. If we cannot find a way to complete a task safely, we will not complete that task. The first and foremost rule of safety is to use some common sense. Something that feels unsafe probably *is* unsafe. Being in lab is a privilege. MIT, EDS, and STEM all have a zero-tolerance policy when it comes to unsafe behavior. Failure to comply with safety rules will result in a loss of lab privileges.

NON-NEGOTIABLE RULES

1. Students are not allowed to use any of the large machines in EDS
2. Students will not be in EDS unless an instructor is present
3. Students are not allowed in the stock room
4. Students must wear close toed shoes at all times in EDS
5. Students must use appropriate safety equipment (safety glasses, gloves)

POTENTIAL WAYS TO GET HURT IN LAB:

- Electrical dangers
  - Shock – don't stick your fingers in wall outlets, don't touch bare circuits. We'll be working with a 9v battery as our power source, which is relatively safe. But remember: it is easy to find a way to hurt yourself if you are looking for one.
  - Fire – the biggest risk for building DriveBot is a battery fire. NEVER connect both terminals of a battery together (short circuit). ALWAYS store a battery with electrical tape or a cover over the batteries.
- Eye dangers
  - Shrapnel – Anytime debris is flying from: a hammer, a mill, wire cutters, etc., WEAR YOUR SAFETY GLASSES. Your eyes are one of the most valuable things on your body.
  - Chemicals – Solder smoke, epoxy, etc., are all bad for your eyes, skin, and lungs. Wear your safety glasses during any activity involving chemicals, wear nitrile gloves if appropriate, and avoid inhaling fumes.
- Burn dangers
  - Soldering – Soldering irons are used to literally melt metal. SOLDERING IRONS ARE HOT. Do not touch any part of the soldering iron beyond the grip
- Physical trauma
  - Blunt objects – Blunt, heavy objects can smash your feet and hands. Always wear close toed shoes in lab.
  - Sharp Edges – Anything can be sharp (e.g. paper cuts). If something feels or looks sharp, ask an instructor to help you file the edge down
  - Misusing tools – Both power tools and hand tools can cause serious damage if they are not being used in the prescribed manner.

If you're debating whether or not to ask an instructor a safety related question,
ASK AN INSTRUCTOR