



Welcome and Safety

GEARS Workshop

8/2/21

Workshop Staff



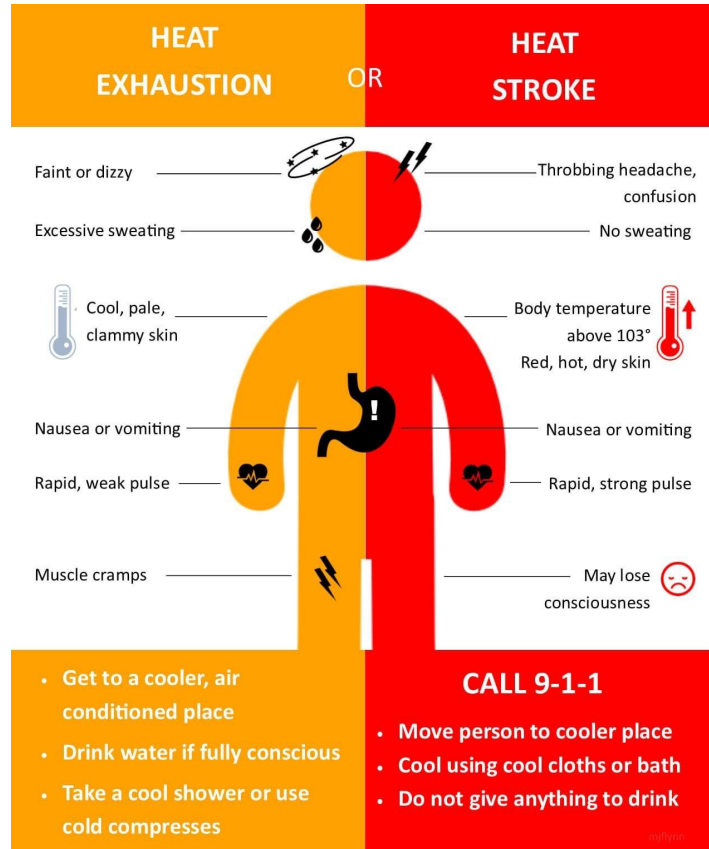
About our Locations

- Restrooms
- Emergency Exits
- Muster Points
- SSFD/SSPD 911
- First Aid Kits
- Fire Extinguishers
- Sanitizing/Lunch Procedure
- Sunscreen
- Main St. Speed Trap
- Low cars caution on east entrance



Image: Google Earth

It's hot - stay very hydrated, especially when working in the shop!



Activities

Monday



Tuesday



Thursday



Sticky Note System



Required Safety Equipment

- Safety Glasses
- Closed toe/back shoes
- Work Gloves

Failure to wear any of these may mean you cannot participate in the shop activities!

Hair/Jewelry/Clothing Hazards



Other common PPE you will encounter

- Hearing Protection
- Respiratory Protection
- Task Specific (welding, chemicals, heavy objects)
- Hot Work
- Hard Hats
- Fall Arrest



Image: Miller Welding

Operating Equipment

- Always keep guards in place
- No loose hair/jewelry
- Rings don't make good fuses
- Don't touch spinning objects
- Never try to clean a spinning internal thread
- Drill/Saw safety (binding/kicking)

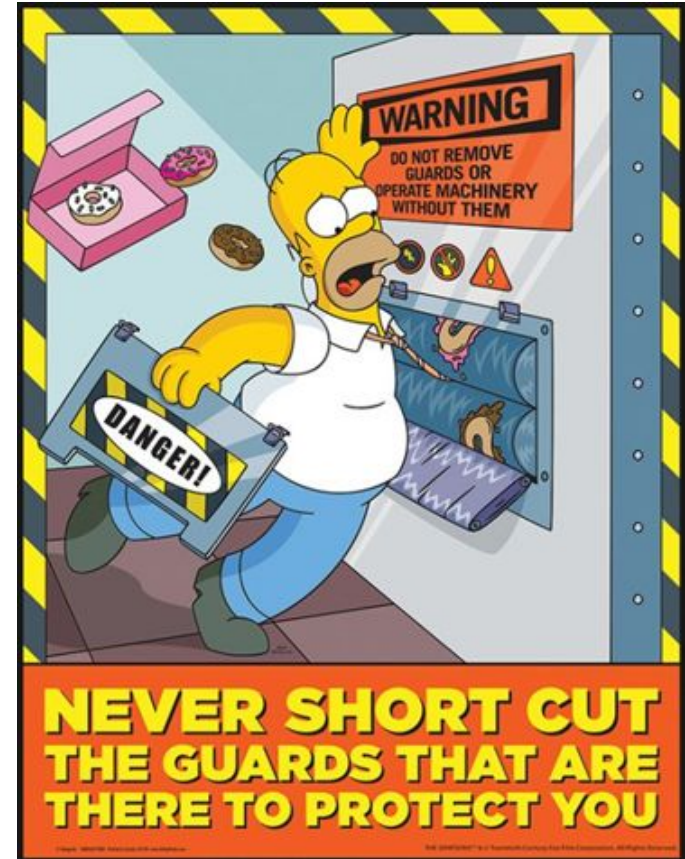


Image: National Safety

SSFD will cover fire safety later today



Other miscellaneous considerations

- Don't know what it is? Don't touch it!
- Metal can look cold, but still be very hot
- Machined parts have razor edges
- Tools aren't toys (but they are fun)
- Everything is more complex (and more expensive) than it appears



Structure

- Mornings - Lecture/All group labs
- Lunch - Clear space for lab setup at the end of lunch
- Afternoons - Labs 1hr/lab/group



Image: Giphy

Workshop Goals



The schedule is a suggestion and you get to help guide our learning



Day 1 - Safety and Basic Electronics/Signals
Day 2- Data Acquisition, Transducers/Calibration and Controls
Day 3 - Mechanical Design and Programming Microcontrollers
Day 4 - Build things and LabView
Day 5 - Troubleshooting, Application Guests



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Introductions

