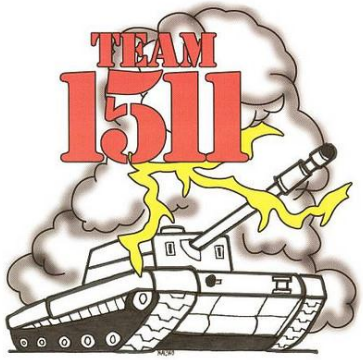
2012
Team 1511
Rolling Thunder
Safety Handbook



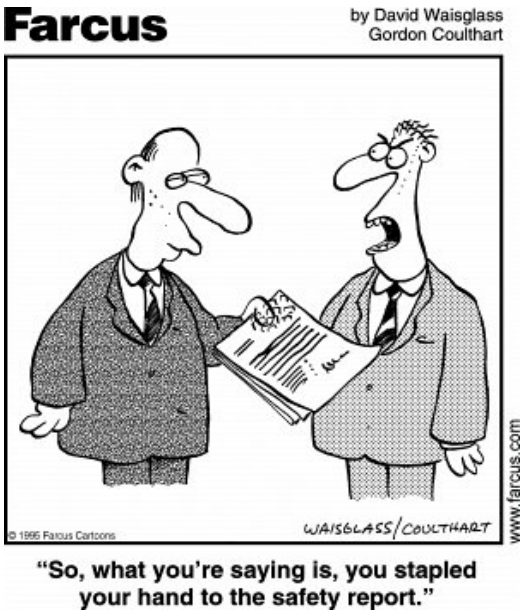
M*A*S*H 1511

“Making*Awesome*Safety*Happen!”

Safety-caliFIRSTilistic-expialidocious!

A Safe Pit is a Happy Pit

Table of Contents



Goals

~Explain what safety is ~Make safety fun ~Promote safety

Safety Policy / Motto

M*A*S*H 1511 "Making*Awesome*Safety*Happen!"
Safety-caliFIRSTilistic-expialidocious!
A Safe Pit is a Happy Pit

Mission Statement

We pledge to try to keep everyone safe at all times. Safety goes further than just the pit area, we will carry it into our own shop area and our every day lives. Safety can be as simple as announcing to everyone when you come through transporting large objects, and as serious as wearing safety glasses and gloves when grinding metal. Safety doesn't have to be boring. If safety is fun, more people will use it not as a practice, but as a good habit. In order for others to be safe, you must set constant examples of safe behavior and educate others on how to be safe. Don't just tell someone that they are doing something unsafe, explain to them the dangers of their actions and how they can use safety in that situation.

Safety Definition

Rolling Thunder defines safety as being cautious and alert when participating in or being around any potentially dangerous situations or actions. When deciding on whether you are doing something safe, ask yourself these questions: Am I putting the well-being of my peers in danger? Swinging a board around in the shop is not only dumb, but also dangerous. Am I using the right tool for the job? Using a band saw to cut a piece of paper would be an incorrect use of the tool. Am I using this tool/operating this machinery correctly? Always make sure that all guards are in place when using saws, grinders, or sanders. Also, always try to clean up after yourself to avoid potential injury to others.

Purpose

What is the purpose of safety? The answer is simple, to make FIRST more fun and less stressful. If you don't have to worry as much about safety because everyone acts safely, building and competing with your robot and team will be more fun and easier for everyone. The fewer things that you have to worry about, the more you can focus on having fun! Besides, it could be hard to explain to your parents why your new nickname is lefty.

Team Safety Training / Safety Talks

2012 Safety Program

Machine Tool Safety
Safety 4 the Right Reasons

2011 Topics

Horseplay
Stress Management
Eye Protection
Accident and Incident Reporting
Corrective Action / Problem Solving Process
Safety in Design
Hand Tool Safety
Machine Tool Safety
Stored Energy
Housekeeping / Organization
Electrical Safety
Lifting / Robot Lifting
Battery Safety
Safe Driving
Competition Safety

2010 Topics

Accident and Incident Reporting
Corrective Action / Problem Solving Process
Designing Safety In
Eye Protection
Stress Management
Hand Tool Safety
Electrical Safety
Lifting / Robot Lifting
Battery Safety
Competition Safety

2009 Topics

Accident and Incident Reporting
Corrective Action / Problem Solving Process
Eye Protection
Stress Management
Hand Tool Safety
Electrical Safety
Lifting / Robot Lifting
Battery Safety
Competition Safety

2008 Topics

Horseplay
Stress Management
Eye Protections
Accident and Incident Reporting
Corrective Action / Problem Solving Process
Hand Tool Safety
Electrical Safety
Safety Mottos
Safe Driving
Lifting / Robot Lifting
Battery Safety
Stored Energy
Competition Safety

Universal & Tool Guidelines

Always wear safety glasses in the shop area and when using tools outside the shop area.

Students should never operate machinery or tools that plug into an outlet without the supervision of an adult mentor or before receiving proper training on the operation and cleaning of that tool or machinery.

Utilize all guards and/or shields meant for machinery when it is in operation.

Always clean up after you have accomplished your goal to prevent injury of others in the future.

Be nice to each other. Don't use tools when you are angry- you are liable to injure yourself or others around you.

No horsing around near machinery or people using tools. You can hurt yourself or cause the person using the tool to get hurt by bumping into them or distracting them.

Secure objects before cutting or drilling them.

Use a spotter when climbing- the ladder can't watch you.

Wear gloves when grinding metal or plastic.

No food or drink in the work area. They can damage tools and make them unsafe to use or make surfaces sticky or slippery.

Pit Guidelines

Always wear safety glasses when in the pits, on the practice field, or on the competition field.

Don't operate grinders or create sparks in the pits.

Don't run in the pits or the stands.

Warn others in the pit when transporting the robot on the cart.

Warn others before using a tool or enabling the robot.

PAY ATTENTION! Most accidents occur because one or more persons are not paying attention. Watch out for people using tools and transporting robots. Guidelines only make the pit safer, they don't make it completely safe.

Turn off the robot before working on it and disconnect the battery before working on its electrical components.

Wear gloves when lifting or carrying the robot.

Keep the pit area clean and neat with all tools put away and the floor swept.

Know where the fire exits, first aid kits, and MSDS sheets are.

No "daisy chaining" to get power in the pits. (Daisy chaining means to power a power strip via an extension cord or to hook multiple power strips together to obtain more outlets.)

Secure all valuables in the pit area to prevent damage or loss.

Children must be accompanied by an adult at all times, while in the pit!

Designing in Safety to the Robot

The locations and ratings of circuit breakers where indicated in the wiring diagrams
Wire size
Stored energy guidelines
Attention to sharp corners and edges
Shields for moving parts and pinch points

Note that robot inspectors will be looking for sharp corners and edges that could cause injury, pinch points, entanglement hazards, and impaling projections. Please mitigate all such hazards. This is for the protection of team members as well as game equipment.

MSDS List

Aerosol Paint –Black Gloss
Aerosol Paint – Red
Aerosol Paint – White Gloss
Boraxo Powdered Hand Soap
Carpenter's Wood Glue
Cut-Ease Stick Lubricant
Dawn Hand Dishwashing Soap
Gojo Orange Pumice Hand Cleaner
E-Z Lacquer Thinner
Gorilla Glue
Hillyard General Lotion Soap
Latex Paint – Exterior - Accent Base
Latex Paint – Exterior – Deep Base
Latex Paint – Exterior White
Latex Paint – Interior Flat
Lead-Free Solder
Loctite Threadlocker Blue 242
Loctite Naval Jelly Rust Dissolver
Mineral Oil
MK Battery
Mobil DTE Oil Series
Mobil Grease – XHP-222
Mobilmet 402, 404 and 416
Mobil Vactra Oil #2
Multi-purpose Lubricant - iChem
Office Duster Plus
Purple Primer – Oatey
PVC Cement – Oatey
Shellac – Clear Aerosol
Silicone Sealant
Tip Tinner – Lead Free
WD-40 Aerosol
10W40 Hydraulic Oil
60/40 Rosin Core Solder

Incident Reporting

When an incident occurs that causes an injury, the Penfield Central School District Injury / Incident Form must be completed immediately after the initial first aid response is completed. In addition the Rolling Thunder Problem Solving Sheet must be completed for all injuries as well as near miss incidents.

The completed Rolling Thunder Problem Solving Sheets will be reviewed at team meetings as needed.