Precision Guessworks

1646

Health and Safety

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General Safety

- The safety of our team members and those nearby are a top priority at all times.
- All safety protection must be worn (hands, ears, feet, eyes, etc.) when working on or near a FRC robot
- Make sure the work space is clean by having all tools and materials in designated locations
- Consult a mentor or returning student for questions or if you're unsure of how to use a tool or machine
- Any injuries that occur during robotics must be reported to a mentor ASAP
- Power tools must **not** be handled unless given permission to do so by a team mentor
- Power tools should **not** be operated without proper training on how to safely handle it
- All team members require a safety test score of 100% before handling any power tools

Behavior

While having fun at robotics is a great thing, it is important that we are being safe at all times. This means students need to keep their hands to themselves and **not** goof off, especially around power tools and machines. Additionally, we hold our students to high standards regarding their behavior, even outside of robotics.

Drug / Alcohol / Tobacco use is **not** allowed

- Any student who is caught using, enabling the use of, in the presence of illegal use, or being under the influence will be immediately suspended from all team activities and subject to the procedures outlined in the LSC/JHS Handbook.
- If an incident occurs while traveling, the student will be sent home at their parent's expense.

Dress Code

Pants/Bottoms

Any pants worn to competition should not be ripped or faded. Skirts, dresses, tights, and leggings should not be worn at competition. If shorts are to be worn they must be khaki shorts. Long pants such as jeans or khakis are preferred as they better protect the legs from injury and burns. Leggings, yoga pants, and other synthetic fabrics are unsafe and unsuitable for robotics due to potential melting when expose to high heat or sparks.

Shoes

It is mandatory that students wear closed toed shoes at competition. Students who do not wear closed toed shoes will not be allowed in the pit area and around the competition field. This is an important measure in place in our shop as well to guard against injury.

Hair and Accessories

Students are required to tie back hair that is past the plane of their face. Accessories that dangle or impair vision must be removed in the pits. These items could become entangled in the robot or tools and put students at risk of injury.

Power Tool Safety System

The power tool safety system is a rating system based on the type of tool being used that lets team members know whether they are allowed to utilize said tool with or without mentor supervision.

Levels of Safety System

Level 0 – Team members are allowed to use these tools properly and as needed. This level does not require permission or supervision. Some examples include most non-powered hand tools, screwdrivers, measuring tools, and more.

Level 1 – Team members are still allowed to use these tools as needed. Although no permission is needed, a mentor is required in the vicinity of the tool in use.

Level 2 – Team members must alert others within the area of danger. A minimum of one mentor must be notified and needs to be in the same room but does not require direct supervision.

Level 3 – Team members are required to seek permission for these tools. A minimum of one mentor must give active supervision during use.

Machines may be automatically moved higher or lower on the scales due to physical locations.

Level	Tools
Level 0	Non-Powered Tools
Level 1	Hacksaw Hand Drill Electrical Tools
Level 2	Dremel Band Saw Belt Sander Laser Engraver Horizontal Band Saw Sheet Metal Brake Sheet Metal Shear
Level 2.5	Miter Saw Lathe
Level 3	Table Saw Plasma Table Grinder

Fitness

It's easy to slip and start being unhealthy, especially when considering the stress and hardships of the build season. To combat this, we've started to implement something called Fitness Fridays. Fitness Fridays is a fitness program built to ensure we keep healthy during the Competition Season. Fitness Friday is an hour and half of exercise. Previous workouts consisted of PiYo (a combination of Pilates and yoga), running, push-ups, yoga, and stretches. We are always looking for ways to broaden our fitness horizons. Our goal is to encourage students to work out on their own, in order to help foster a healthy lifestyle that will benefit them in the years to come.

Nutrition

With all the time that robotics consumes, it can be difficult to prepare nutritious food. As a result of this problem, we are committed to furthering a healthy lifestyle of all members on the team. This means both staying active and maintaining a healthy diet. To help us reach this goal, we've contacted Chartwells, a company that works closely with local schools in order to provide healthy food to kids, while teaching them how to eat healthy, and the benefits of doing so. They've been providing us with lunches after school, as well as providing lunches to the various sports teams.

Mental health

Here at Precision Guessworks, we recognize the need to maintain positive health across the board. This goes beyond physical health and includes mental and emotional health. To help us work toward this goal, we're committed to creating a positive working environment for everyone. Being on the team you will always have somebody reliable, somebody you can count on. Having that support from adults and students alike makes our team less of a team, and more of a family. As students go through high school they soon realize that life is hard. Going through build season can be very stressful and strenuous, but it brings us all together as friends/ family. As a team we need to take care of each other.

COVID-19

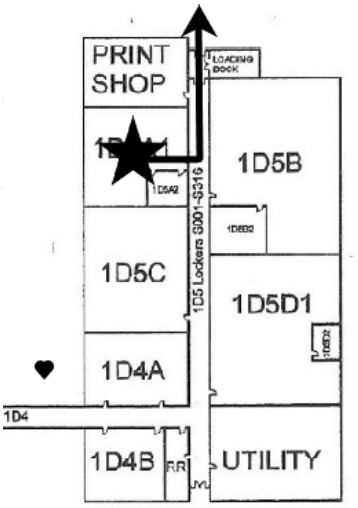
During the competition season,..... this happened.

Emergency Plans

Emergency plans are necessary for hazardous, unplanned events and are one way of avoiding dangerous situations when they are presented.

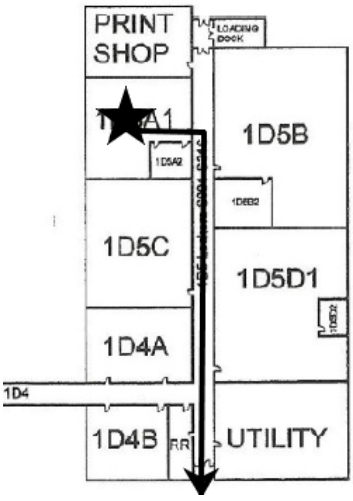
- The first step to avoid any hazardous situations includes being aware of the hazards around you and reacting appropriately.
- Types of hazards include noise, cleanliness, airborne debris, chemical, burns, electrical, machinery, tools, clothing, accessories, and behavior.

Evacuation Plans

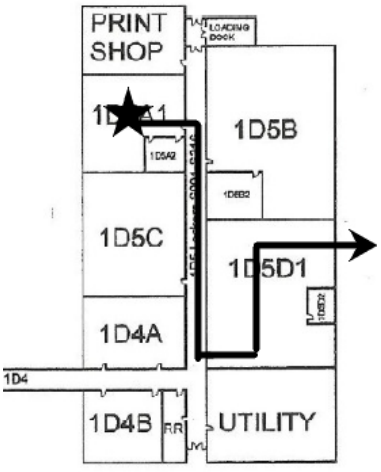


side the building such as fire, the following routes of
. Route 1 is the primary route and should be taken if possible.
own in the case that Route 1 is inaccessible in an emergency.
udents will meet at the football field for a head count and to

Route 1



Route 2



Route 3

Material Safety Data Sheets

Material Safety Data Sheets

Aluminum

Hazard Identification

Potential Acute Health Effects

Slightly hazardous in case of skin contact (irritant). Non-irritating to the eyes. Non-hazardous in case of ingestion.

Potential Chronic Health Effects

The substance is toxic to lungs. Repeated or prolonged exposure to the substance can produce target organs damage.

Precautionary Measures

Personal safety equipment: safety glasses

Other measures: Wash hands before and after handling, do **not** eat or drink while using.

First Aid Measures

Eye Contact

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.

Skin Contact

Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.

Inhalation

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion

Do **not** induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Material Safety Data Sheets

Sodium Bicarbonate

Synonyms: Baking Soda; Bicarbonate of soda; Sodium acid carbonate; Monosodium carbonate; Sodium hydrogen carbonate; Carbonic acid monosodium salt

Hazard Identification

Potential Acute Health Effects

Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, and of inhalation.

Precautionary Measures

Personal Safety Equipment: safety glasses, dust mask in cases of large quantities

Other measures: Wash hands before and after handling, do **not** eat or drink while using.

First Aid Measures

Eye Contact

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention if irritation occurs.

Skin Contact

Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.

Inhalation

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion

Do **not** induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

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Stability and Reactivity

Stability: The product is stable.

Conditions of Instability: Incompatible materials, Moisture. Stable in dry air, but slowly decomposes in moist air.

Incompatibility: Reactive with acids.

Special Remarks on Reactivity: Reacts with acids to form carbon dioxide. Dangerous reaction with monoammonium phosphate or a sodium-potassium alloy.

Material Safety Data Sheets

Steel

Hazard Identification

Potential Acute Health Effects

Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

Potential Chronic Health Effects

Prolonged or repeated exposure may cause allergy symptoms, asthma symptoms, breathing difficulties, and/or organ damage

Precautionary Measures

Personal Safety Equipment: safety glasses

Other measures: Wash hands before and after handling, do **not** eat or drink while using.

First Aid Measures

Eye Contact

Flush eyes with plenty of water for at least 15 minutes. Seek medical attention if eye irritation persists.

Skin Contact

Wash affected area with mild soap and water. Seek medical attention if skin irritation persists.

Inhalation

Remove to fresh air. Check for clear airway, breathing and presence of pulse. If necessary administer CPR. Consult a physician immediately.

Ingestion

Dust may irritate mouth and gastrointestinal tract. If ingested, seek medical attention promptly. Do **not** induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

Material Safety Data Sheets

Aerosol Lubricant

Synonyms: WD-40

Hazard Identification

Potential Acute Health Effects

May cause irritation to eyes, stomach, or skin. May cause nasal and respiratory irritation and headache, dizziness or nausea. Intentional abuse may be harmful or fatal.

Precautionary Measures

Personal Safety Equipment: Safety glasses

Other Measures: Use in a ventilated area away from sources of ignition.

First Aid Measures

Eye Contact

Flush eyes with plenty of water for at least five minutes. If irritation still occurs, remove contacts if present and continue to flush with water for several more minutes. Seek medical attention if eye irritation persists.

Skin Contact

Wash with mild soap and water. Seek medical attention if skin irritation persists.

Inhalation

If irritation is experienced, move to fresh air. Get medical attention if irritation or other symptoms develop and persist.

Ingestion If ingested, seek medical attention promptly. Call physician, poison control center or the WD-40 Safety Hotline at 1-888-324-7596 immediately. Do **not** induce vomiting unless directed to do so by medical personnel.

Fire Hazards

Risk of Ignition/Rupture

This product is pressurized and highly flammable. Keep away from heat, sparks, and open flame. Exposure to heat can cause canisters to burst violently.

Extinguishing Flames

Use water fog, dry chemical, carbon dioxide or foam. Do **not** use water jet or flooding amounts of water. Product will float on the surface and spread fire.

Spill Measures

Leaking cans should be placed in a plastic bag or open pail until the pressure has dissipated. Contain and collect liquid with an inert absorbent and place in a container for disposal. Clean spill area thoroughly.

Material Safety Data Sheets

Wood

Hazard Identification

Potential Acute Health Effects

Wood dust may irritate the eyes, skin, respiratory system, or digestive tract. Wood splinters could injure eyes or skin.

Potential Chronic Health Effects

Prolonged or repeated exposure may cause allergy symptoms, asthma symptoms, and/or breathing difficulties.

Precautionary Measures

Personal Safety Equipment: safety glasses

Other measures: Wash hands before and after handling, do **not** eat or drink while using.

First Aid Measures

Eye Contact

In case of contact, immediately flush eyes with large amounts of water, continuing to flush for 15 minutes. Do **not** rub the eyes. Get medical attention immediately.

Skin Contact

If irritation develops, wash with soap and water. Get medical attention if irritation persists.

Inhalation

Remove from area of exposure. If the affected person is not breathing, apply artificial respiration. If persistent irritation, severe coughing or breathing difficulty occurs, seek medical attention.

Ingestion

Wood dust may irritate digestive tract. If ingested, seek medical attention. Do **not** induce vomiting unless directed to do so by medical personnel.

Fire Hazards

Risk of Ignition

Wood is combustible when exposed to heat or flame. Wood dusts may form explosive mixtures with air in the presence of an ignition source.

Extinguishing Flames

Wood fires may be put out by any type of fire extinguisher. Do **not** use water to put out flames if wood has been exposed to other flammable materials.

Material Safety Data Sheets

Lead-Free Solder Alloy

Hazard Identification

Potential Acute Health Effects

May cause irritation to eyes and skin. Prolonged inhalation may irritate the respiratory system. May be harmful if swallowed and could cause vomiting

Precautionary Measures

Personal Safety Equipment: safety glasses

Other measures: Wash hands before and after handling, do **not** eat or drink while using. Use in a ventilated area.

First Aid Measures

Eye Contact

Flush eyes with plenty of water for 15-20 minutes. Seek medical attention if eye irritation persists.

Skin Contact

Wash affected area with mild soap and water. Seek medical attention if skin irritation persists.

Inhalation

Remove to fresh air. Check for clear airway, breathing and presence of pulse. If necessary administer CPR. Consult a physician immediately.

Ingestion

If ingested, seek medical attention promptly. Do **not** induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

Additional Cautions

This material is primarily used at high heat. Burns are a likely risk. Use appropriate caution and care when handling hot materials. Be aware of general burn first aid should injury occur.