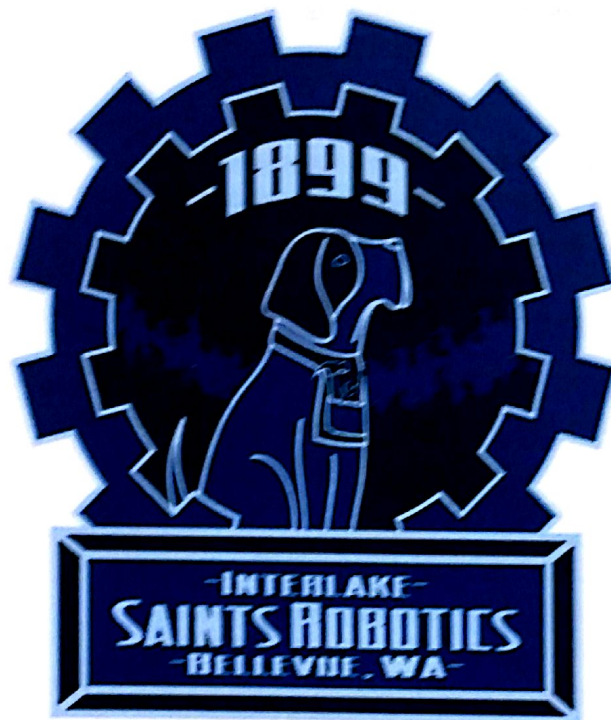


# Saints Robotics Safety, Health, and Wellness Program

2014-2015



Interlake High School  
Team 1899

Version. 2.0 Dated March 14, 2015

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#### Appendices

A - *FIRST* Robotics Competition Team Safety Manual

## **Section I. Introduction**

The Saints Robotics Safety, Health and Wellness Program consists of four elements. No one is more important than the others because the entire program must function in unison to be successful. It is expected that its contents will be followed by the coaches, mentors and team.

This program has been adapted from the Team Driven Safety Manual. The adaptations were made by The Safety Captain for the season, Laura Stiers.

### **Article 1.01 Purpose**

This safety program is an easy to use guide for important safety and health information for Coach/Mentors and Team Members.

### **Article 1.02 Scope**

This program applies to Coach/Mentors and Team Members of Saints Robotics

### **Article 1.03 Four Areas**

- A. Coach/Mentor Commitment and Team Involvement
- B. Shop and Pit Job Safety Analysis
- C. Hazard Prevention and Control
- D. Training and Education

### **Article 1.04 Key Components of Each Element**

- A. Coach/Mentors Commitment and Team Involvement
  - 1. Coach policy statement on safety and health
  - 2. Provisions for resources to maintain a safety and health program
  - 3. Team participation in safety committees
- B. Team Safety Analysis
  - 1. On-site inspection of shop and pit areas (competitions)
  - 2. Audits by mentors
- C. Hazard Prevention and Control
  - 1. Procedures and policies on health and safety
  - 2. Personal protective equipment (PPE)
  - 3. Reliance on For Inspiration and Recognition of Science and Technology (FIRST) Robotics Competition Team Safety Manual
- D. Training and Education



1. General training sessions including general safety, PPE, and correct use of tools

## **Section II. Coach/Mentors Commitment and Team Involvement**

A successful safety and health program is only as good as the Coach's commitment and the team's involvement. The key to success is active involvement with proactive communication.

### **Article 2.01 Coach Policy Statement on Safety and Health**

It is the policy of Saints Robotics to pursue every reasonable effort to provide a safe and healthful working environment for mentors and team members. The Coach recognizes the value of the individual team member to conduct their work and activities in a safe manner. The safety and health of our team members and mentors is our highest priority. Mentors and team members are required to follow all of Saints Robotics' safety rules. Unsafe working conditions, unsafe practices, or machines that are unsafe to operate must be reported to Coach Mentor, Team Captain, or Safety Captain immediately. Mentors or Team Members also must report to the Coach, or the Team Captain, or the Safety Captain, any injuries that occur as part of the design, construction, travel and competition events for Saints Robotics.

Also, as part of gracious professionalism advocated by *FIRST* we shall mentor and support other Robotics Team in safety and health issues. This will be accomplished either directly, such as during competitions providing input in pit operations, or indirectly, such as how we mentor new teams in our locale.

### **Article 2.02 Responsibilities**

Everyone is responsible for safety during design, construction, travel and competition events (the "season") for the Team. This includes reading and understanding this program. It also includes participation and comprehension in training. Each team member is responsible for communicating effectively in order to meet the overall goal of providing the safest environment.

#### **A. Coach Responsibilities**

1. Evaluate the Safety Captain's performance each year to make sure they are carrying out their responsibilities as described in this program.
2. Insure that incidents are fully investigated and corrective action taken to prevent the hazardous conditions or behaviors from happening again.
3. Ensure that a record of injuries and illnesses is maintained.
4. Set a good example by following established safety rules and attending required training.

#### **B. Team Safety Captain Responsibilities**

1. Ensure that each team member has received an initial orientation before beginning the season.
2. Ensure that each team member receives training on safe operation of equipment or tasks before starting work on that equipment or project.

3. Ensure that each team member receives required personal protective equipment (PPE) before starting work on a project requiring PPE.
4. Do a daily walk-around safety-check of the work area. Promptly correct any hazards you find.
5. Set a good example for team members by following safety rules and attending required training.
6. Report all incidents to the Coach.
7. Talk to Coach about changes to work practices or equipment that will improve team safety.

#### C. Team Responsibilities

1. Follow safety rules described in this program and in any training that you receive.
2. Report all injuries to Coach promptly regardless of how serious.
3. Always use personal protective equipment (PPE) in good working condition where it is required.
4. Do not remove or defeat any safety device or safeguard provided for team member protection.
5. Encourage team members to use safe work practices on the job by your words and examples.
6. Make suggestions to Safety Captain or Coach about changes you believe will improve team safety.

#### **Article 2.03    *Resources to Maintain Safety and Health Program***

The resources to maintain a safety and health program are as follows:

- Coach shall ensure that sufficient team member time, supervisor support, and funds are budgeted for safety equipment, training and to carry out the safety program.
- Parents and team members shall support fund raising to provide PPE for team members;
- Team "Parents" will support safety during travel; and all other team activities

### **Section III.    Team Safety Analysis**

An important component of the safety and health program is assessment of potential hazards and ongoing evaluation of the program. This is important to the evolution of the program as members adopt it and it becomes part of the season. Through assessment and improvement only then does it become integrated into the team's framework. Saints Robotics is committed to aggressively identifying potentially hazardous conditions and practices that are likely to result in injury or illness to team members. We will take prompt action to eliminate any hazards we find. In addition to reviewing injury records and investigating incidents for their causes, the Coach and the Safety Captain will regularly check the workplace for hazards as described below.

### **Article 3.01 *On-site inspection of shop area***

The shop area shall be inspected for safety and health hazards. Any deficiencies shall be reviewed and mitigated.

#### **A. Deficiencies found**

1. A mitigation plan shall be formed and instituted with the Safety Captain taking the lead with support from the Coach.
2. Improvements in the program shall be instituted by the Team Captain and Safety Captain.
3. The improvements shall be evaluated during the build portion of the competition season.

### **Article 3.02 *Competition***

During competitions the safety policies and procedures put forth by the *FIRST* Robotics Competition Team Safety Manual (Appendix A) shall be instituted and followed. During competitions the Safety Checklist in Appendix A of the *FIRST* Robotics Competition Team Safety Manual shall be completed by the Safety Captain or designated team member. The pit crew shall read and fully understand the *FIRST* Robotics Competition Team Safety Manual.

### **Article 3.03 *Accident/incident investigation***

The Safety Captain, with external support, will investigate all loss producing incidents for root cause with effective prevention, where necessary.

## **Section IV. Hazard Prevention and Control**

This section includes specific requirements to identify and prevent any potential hazards from causing harm to our team. The below listed rules have been established to help make our work environment a safe and efficient place to build a robot. These rules are comprised of the general safety rules (Section 4.01) and the job specific safety rules (Section 4.02). We have established safety rules and personal protective equipment (PPE) requirements based upon a hazard assessment for each task listed below.

Saints Robotics is committed to eliminating or controlling hazards that could cause injury or illness to our team members. Whenever possible we will design the workplace and robot to eliminate team members' exposure to hazards while building the robot and during use of the robot. Where these engineering controls are not possible, we will write work rules that effectively prevent team exposure to the hazard. When the above methods of control are not possible or are not fully effective, we will require team members to use personal protective equipment (PPE) such as safety glasses, hearing protection, foot protection, etc.



## **Article 4.01    *General Safety Rules***

### **A.    Basic Safety Rules**

1. Never do anything that is unsafe in order to get the robot built.
2. Do not remove or disable any safety device! Keep guards in place at all times on operating machinery.
3. Never operate a piece of equipment in the shop unless you are working with a mentor or have been trained and are authorized.
4. Use your personal protective equipment whenever it is required.
5. Obey all safety warning signs.
6. Being under the influence of alcohol or illegal drugs or using them as part of this team is prohibited.
7. Horseplay, running and fighting are prohibited
8. Clean up spills immediately. Replace all tools and supplies after use. Do not allow scraps to accumulate where they will become a hazard. Good housekeeping helps prevent injuries.

### **B.    Basic Machine Shop Safety Rules**

1. Never operate a piece of equipment in the machine shop unless you are working with a mentor or have been trained and are authorized by the safety mentor or Coach.
2. Turn on ventilation equipment prior to using shop equipment (e.g., table saw, etc.).
3. Do not reach around or behind any operating piece of equipment.
4. Do not overreach. Keep proper footing and balance at all times.
5. Do not force any piece of equipment. The equipment cuts better and more safely at the rate for which it was designed.
6. Keep your hands out of the path of the cutting surface.
7. Allow motor to reach full speed before beginning operations (e.g., cutting or grinding, etc.).
8. Do not leave the equipment until it has stopped completely. Turn the power off.
9. Keep the floor around the equipment clean and free of obstructions or clutter.
10. No open toe or open heel shoes.
11. No loose clothing.
12. Before starting a piece of equipment, always check it for correct setup and always check to see if the equipment is clear by operating it manually, if possible.
13. Think through the entire job before starting; ask for help if you have questions.
14. Do not work in the shop if you are tired or in a hurry – this almost always causes injury or parts to not come out right.
15. No loose jewelry.
16. Confine long hair.

#### **Article 4.02    *Required PPE for Machine Shop:***

##### **A.    Safety glasses**

1. Check for broken or missing components (such as side shields) and for scratched lenses prior to use. Safety glasses must have a "Z87.1" marking on the frame.
2. For personnel who wear prescription eye glasses, use safety glasses that fit over prescription eye glasses or use a face shield with your glasses. Never use a face shield without glasses beneath it.

##### **B.    Hearing protection**

1. To be used when operating equipment the following equipment: table saw and band saw, and grinder.
2. The effectiveness of hearing protection is reduced greatly if the hearing protectors do not fit properly or if they are worn only part time during periods of noise exposure. To maintain their effectiveness, they should not be modified.
3. Use ear plugs or ear muffs.

##### **C.    Foot protection**

1. Wear only closed toe and closed heel shoes in the shop and during the competition.
2. Flip-flops, sandals, mules, crocs, clogs, etc are not allowed in machine shop or in the pit.

##### **D.    Hand protection**

1. Use hand protection designed to protect against specific hazard.
  - a) When handling batteries for robot, use acid resistant gloves, such as nitrile.
  - b) When using sharp hand tools or handling sharp machined parts, use leather or thick canvas or other similar type gloves.
2. Check your gloves for proper size, absence of cracks and holes, and good flexibility and grip.

#### **Article 4.03    *Job Related Safety Rules***

##### **A.    Work in or passing through the Machine shop**

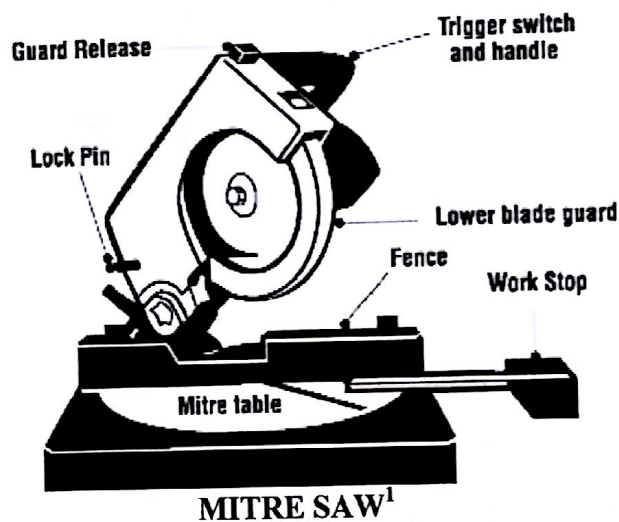
1. Do not distract or talk with team members when they are using a machine in the shop.

##### **B.    Work with grinders: Machine shop**

1. Required PPE:
  - a) As previously stated.
  - b) In addition, use a face shield when operating the grinder.
2. Work Rules:
  - a) Check that the gap between the tool rest and the wheel is less than 1/8".
  - b) Check that the upper wheel (tongue) guard gap is less than 1/4".



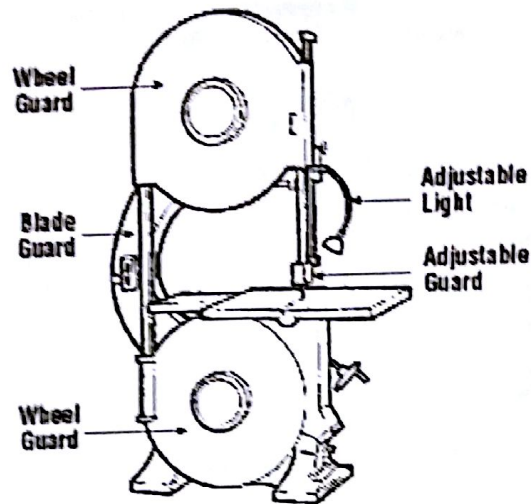
- c) Check that the wheel edge is not excessively grooved. Dress the wheel if necessary.
- d) Do not grind on the face of the wheel. Run a new grinding wheel for about one minute before engaging the wheel.
- e) Stand to one side of the wheel before starting the grinder.



#### C. Work with Mitre Saws: Machine shop

1. Keep one hand on the trigger switch and handle and use the other hand to hold the stock against the fence.
2. Keep hands out of the path of the blade.
3. Keep guards in place and in working order.
4. Remove adjusting keys and wrenches.
5. Use a crosscut or combination blade.
6. Ensure that the blade rotates in the correct direction.
7. Ensure that the blade and arbor collars are secure and clean. Recessed sides of collars should be against blade.
8. Keep blade tight, clean, sharp and properly set so that it cuts freely and easily.
9. Do not cut pieces smaller than 20 cm (8 in.) in length.
10. Do not cut "free hand." The stock should lie solidly on the table against the fence.
11. Do not take your hand away from the trigger switch and handle until the blade is fully covered by the lower blade guard.

<sup>1</sup> Photo provided by [www.ccohs.ca/oshanswers/safety\\_haz/](http://www.ccohs.ca/oshanswers/safety_haz/)



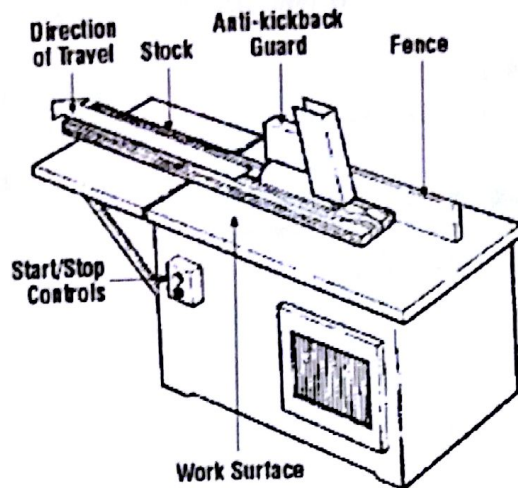
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## BAND SAW

### D. Work with Band Saw: Machine shop

1. Make sure all guards are in place and properly adjusted. Ensure all band wheels are enclosed.
2. Adjust blade guard height to about 3 mm or 1/8 inch above the top of the material being cut.
3. Ensure the blade is tracking correctly and runs freely in and against the upper and lower guide rollers.
4. Ensure the blade is under proper tension. A band saw equipped with automatic tension control is desirable.
5. Use band saw blades that are sharp, properly set and otherwise suitable for the job (e.g., the right tooth pitch; tooth form; blade width).
6. Hold stock firmly and flat on the table to prevent the stock from turning and drawing your fingers against the blade. Keep hands braced against the table.
7. Use a push stick when you remove cut pieces from between the fence and saw blade or when your hands are close to the blade. Keep your hands on either side of the blade - not in line with the cutting line and the blade.
8. Make release (relief) cuts before tight curves when doing intricate scroll-type work.
9. Keep the machine properly oiled and serviced.
10. Do not use excessive force when pushing the wood past the blade.
11. Do not back the stock away from the blade while the saw is in motion if the work piece binds or pinches on the blade.
12. Do not stop a band saw by thrusting stock against the cutting edge or the side of a blade immediately after the power has been shut off.
13. Do not remove sawdust or cuttings from the table by hand or with compressed air. Use a stick or brush.

<sup>2</sup> Photo provided by [www.ccohs.ca/oshanswers/safety\\_haz/](http://www.ccohs.ca/oshanswers/safety_haz/)



**TABLE SAW**

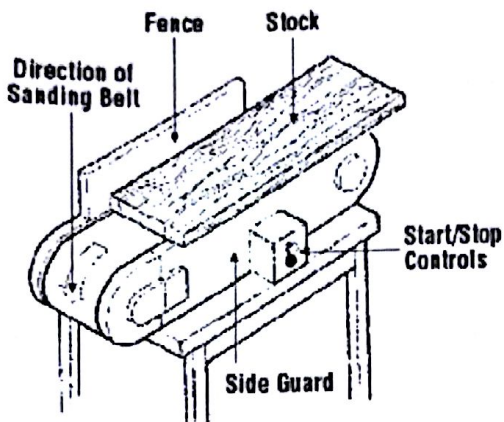
**E. Work with Table Saw: Machine shop**

1. Pay particular attention to reducing the risk of kickback (when the stock or work piece can be violently thrown back toward the operator).
2. Choose proper blades for the type of work being done.
3. Keep blades clean, sharp, and properly set so that they will cut freely without having to force the work piece against the blade.
4. Use the guards provided with the saw or ones designed for use with the saw that you are using. Keep them in place and in good working condition.
5. Use a guard high enough to cover the part of the blade raising above the stock and wide enough to cover the blade when it is tilted. The blade height should be set so it does not extend more than about 3 mm (1/8 in) above the height of the piece being cut.
6. Ensure that the fence is locked in position after the desired width has been set.
7. Hold the work piece firmly down on the table and against the fence when pushing the work piece/stock/metal through.
8. Ensure that there is adequate support to hold a work piece; use extension tables or roller supports at the side or back for larger pieces.
9. Feed stock into the blade against the direction of its rotation.
10. Move the rip fence out of the way when cross cutting. Never use it as a cut off gauge.
11. Use a push stick when ripping narrow or short stock (e.g., when the fence is set less than about 15 cm (6 in) from the blade; when the piece is less than 30 cm (12 in) long or when the last 30 cm (12 in) of a longer piece is being cut).
12. Use guard with a spreader (riving knife) and anti-kickback fingers for all ripping or cross cutting operations.
13. Keep the body and face to one side of the saw blade out of the line of a possible kickback.
14. When shutting off the power, never attempt to stop the saw quickly by shoving anything against the blade. Make sure the saw has stopped before leaving it.

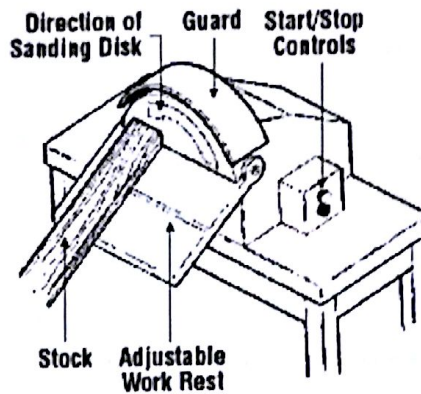
<sup>3</sup> Photo provided by [www.ccohs.ca/oshanswers/safety\\_haz/](http://www.ccohs.ca/oshanswers/safety_haz/)



15. Provide adequate support to the rear and sides of a saw table for wide or long stock.
16. Be careful when waxing, cleaning, or servicing the table. Shut off and unplug (or lock out) a saw before doing any work on the saw.



**HORIZONTAL BELT SANDER<sup>4</sup>**



**DISC SANDER<sup>5</sup>**

**F. Work with Belt Sander: Machine shop**

1. Hold small or thin pieces of stock in a jig or holding device to prevent injuries to the fingers or hands.
2. Inspect abrasive belts before using them. Replace belts worn, frayed, or excessively worn in spots.
3. Sand on the downward side of a disc sander or belt so that the material is driven onto the table by the machine's rotation.
4. Adjust work rests on all manually fed sanders to provide minimum clearance between the belt and the rest. The work rest should be secured properly.
5. Install abrasive belts that are the same width as the pulley drum.
6. Adjust abrasive belt tension to keep the belt running the same speed as pulley-drum when the wood is in contact with the belt.
7. Guard feed rollers to allow boards to pass, but keep operators' fingers and arms out.

**G. Work with Drill Press: Machine shop**

1. Use a vacuum, brush or rake to remove cuttings.
2. Remove burrs and chips from a drilled hole. When making deep holes, clean out the hole frequently.
3. Use a clamp or drill vise to prevent work from spinning.
4. Don't use a dull or cracked drill. Inspect the drill before using.
5. Lubricate drill bit when drilling metal.
6. Reduce the drilling pressure when the drill begins to break through the work piece. This action prevents drill from pulling into the work and breaking.
7. Keep drill bits clean and sharp. Dull drills are a common cause of breakage.

<sup>4</sup> Photo provided by [www.ccohs.ca/oshanswers/safety\\_haz/](http://www.ccohs.ca/oshanswers/safety_haz/)

<sup>5</sup> Photo provided by [www.ccohs.ca/oshanswers/safety\\_haz/](http://www.ccohs.ca/oshanswers/safety_haz/)

17. Ensure that the chip and coolant shields are in place.
18. Shut off the power supply to the motor before mounting or removing accessories.
19. Stop lathe before taking measurements of any kind.
20. Use a vacuum, brush or rake to remove cuttings only after the lathe has stopped moving.
21. Do not lean on machine. Stand erect; keep your face and eyes away from flying chips.
22. Do not place hands on work turning in the lathe.
23. Do not use calipers or gauges on a work piece while machine is moving.
24. Do not make heavy cuts on long slender pieces because the work could bend and fly out of the lathe.

#### I. Work with Milling Machine: Machine shop

1. Ensure that the work piece and cutter are mounted securely before taking a cut.
2. Check that work is mounted squarely.
3. Mount work in a vise that is bolted or held magnetically to the table. Use proper hand tools to make adjustments. Refer to Hand Tools for more information.
4. Hold milling cutters with a cloth to avoid being cut when handling them.
5. Move table as far as possible from cutter while setting up work to avoid injuring your hands.
6. Mill the largest surface first.
7. Keep hands, brushes and rags away from the revolving milling cutter.
8. Use a vacuum, brush or rake to remove cuttings only after the cutters have stopped moving.
9. Change cutting compounds periodically.
10. Keep cutters sharpened correctly and in good condition.
11. Keep working surface clear of scraps, tools and materials.
12. Keep floor around the milling machine free of oil and grease.
13. Ensure that the following factors are considered when setting cutting speed:
  - a) Material to be machined
  - b) Type of cutter
  - c) Finish required
  - d) Depth of cut
  - e) Rigidity of machine and work piece
14. Do not attempt to mount measure or adjust work until cutter is completely stopped.
15. Do not use an excessively heavy cut or feed as it can cause the cutter to break. The flying pieces could cause serious injury.
16. Do not reach over or near a revolving cutter. Keep hands at least 30 cm (12 in.) from a revolving cutter.
17. Do not lean or rest hands on a moving table.
18. Do not make any adjustments while the machine is running.
19. Do not use paper shims to check the distance from the cutter to the stock.
20. Do not move the operating levers without knowing what they control and what action is going to take place. Use a vacuum, brush or rake to remove cuttings.



8. Roll sleeves above the elbow to prevent them from being caught in revolving parts.
9. Do not wear gloves, rings, watches, or bracelets while working with a drill press.
10. Do not set speeds, adjust, or measure work until machine is completely stopped.
11. Do not leave chuck key in drill chuck. Make adjustments and remove key immediately.
12. Do not hold work by hand when drilling holes larger than 12 mm (1/2 in.) in diameter.
13. Always try to support the part on parallels or a backing board when drilling thru material.
14. When drilling a deep hole withdraw the drill bit frequently to clear chips and lubricate the bit.
15. If the drill binds in a hole, stop the machine and turn the spindle backwards by to release the bit.
16. Do not place hands under the stock being drilled.
17. Do not stop rotation of chuck and spindle with your hand.
18. Do not remove a broken drill with a centre punch and hammer.

#### H. Work with Lathe: Machine shop

1. Use a vacuum, brush or rake to remove cuttings.
2. Center drill work deeply enough to provide support for the piece while it is turning.
3. Adjust tool and tool rest so that they are slightly above the center of the work.
4. Make sure that the chuck, driveplate, or, faceplate is securely tightened on the lathe spindle.
5. When installing or removing the chuck, driveplate, or faceplate do not use machine power.
6. Move the tool bit a safe distance from the collet or chuck when inserting or removing work.
7. Do not run the machine faster than the proper cutting speed – consult a speed and feed table to determine the best speed.
8. Inspect chucks for wear or damage. Flying pieces can be very dangerous.
9. Remove chuck wrench immediately after adjusting chuck.
10. Always clamp the tool bit as short as possible in the tool holder to prevent it from breaking or chattering.
11. Always make sure that the tool bit is sharp and has the proper clearance.
12. If any filing is done on work revolving in the lathe, file left handed to prevent slipping into the chuck. Never use a file without a handle.
13. Set the tool bit on the centerline of your work to prevent work from climbing over tool or cutting above center and dragging.
14. Use a barrier guard when operating the lathe in semi-automatic or automatic mode.
15. Guard all power transmission parts.
16. Remove all tools, measuring instruments and other objects from saddle or lathe bed before starting machine.

#### J. Work with hand tools

1. Use good quality tools.
2. Keep tools in good condition at all times. Keep them clean and dry, and store them properly after each use.
3. Inspect tools for defects before use. Replace or repair defective tools.
4. Keep cutting tools sharp and cover sharp edges with suitable covering to protect the tool and to prevent injuries from unintended contact. .
5. Replace cracked, splintered, or broken handles on files, hammers, screwdrivers, or sledges.
6. Ensure that the handles of tools like hammers and axes fit tightly into the head of the tool.
7. Replace worn jaws on wrenches, pipe tools and pliers.
8. Redress burred or mushroomed heads of striking tools.
9. Pull on a wrench or pliers. Never push unless you hold the tool with your palm open.
10. Point sharp tools (e.g., saws, chisels, knives) laying on benches away from aisles, and handles should not extend over the edge of the bench top. When using going in a direction away from your body.
11. Use a heavy belt or apron and hang tools at your sides, not behind your back.
12. Do not use tools for jobs they are not intended to do. For example, do not use a slot screw drivers as a chisel, pry bar, wedge or punch or wrenches as hammers.
13. Do not apply excessive force or pressure on tools.
14. Do not cut towards yourself when using cutting tools.
15. Do not hold the stock in the palm of your hand when using a cutting tool or a screwdriver.
16. Do not wear bulky gloves to operate hand tools.
17. Do not throw tools. Hand them, handle first, directly to other team members.
18. Do not carry a sharp tool in your pocket.

#### K. Work with power hand tools

1. Follow above rules as appropriate.
2. Do not carry by the cord or hose.
3. Do not yank the cord or hose to disconnect from receptacle.
4. Do not place cord or hose near heat, oil or sharp edges.
5. Do not leave tools connected when not in use.

### **Article 4.04 Chemical Safety**

#### A. Work Rules

1. Learn about the chemicals that you are planning to use before opening them. Read the instructions and Material Safety Data Sheets (MSDS).
2. MSDS for chemicals used in the machine shop are posted on the flammable storage cabinet.
3. New chemicals shall not be used in the machine shop without first informing the Coach and Safety Captain and providing an MSDS.
4. New MSDS shall be posted at flammable storage cabinet.

5. Like chemicals shall be stored in flammable storage cabinet. Store incompatible materials away from one another.
6. First Aid kit is in Mr. Steele's classroom above the cabinets. It is the responsibility of the safety captain to make sure the kit is complete and up to date.
7. Spill kit is in the machine shop near the robot. It is the responsibility of the safety captain to make sure the kit is complete and up to date.
8. Follow policies and procedures listed in *FIRST* Robotics Competition Team Safety Manual on pages 7-10.

**B. Required PPE:**

1. For battery handling, use acid resistant gloves, such as nitrile.
2. For handling other chemicals, use appropriate PPE as directed on MSDS.

**Article 4.05 *Competition Safety Rules***

**A. Required PPE:**

1. As listed in *FIRST* Robotics Competition Team Safety Manual but at a minimum when working in the pits as follows:
  - a) Hand protection
  - b) Eye protection
  - c) As directed by Safety Captain or Coach or Safety Mentor

**B. Work Rules:**

1. All policies and procedures in *FIRST* Robotics Competition Team Safety Manual shall be followed.
2. When working in the pits ensure that the safety procedures on Pages 4 and 5, and the stored energy procedures on Page 7 of the *FIRST* Robotics Competition Team Safety Manual are followed.

**Article 4.06 *Emergency Planning***

**A. In Case of Fire**

1. Follow Saints Robotic's rules when in shop.
2. Follow rules as provided by competition event provider.

**B. In Case of Earthquake**

1. Follow Saints Robotic's rules when on campus.
2. Follow rules as provided by competition event provider.

## **Section V. Safety and Health Training and Education**

Training is an essential part of our plan to provide a safe work environment as part of Saints Robotics. Team members will learn about this program, learn about hazards, and



learn how to protect themselves and co-team members. Also, we as part of *FIRST* are obligated to share our common safety knowledge with other teams through insights at competitions and through mentoring new teams.

To insure that all team members are trained before they start a task that requires training, we have the Safety Captain verify this each season in conjunction with the Coach.

#### **Article 5.01    *General Safety Training***

##### **A.    Basic Safety Orientation Training**

1. All team members must attend – if they do not participate they will not be part of the team.
2. Trainers – Coach, and Safety Captain
3. Course outline – 60 minutes
  - a) Safety and Health Program Overview
  - b) Personal Protective Equipment Overview
  - c) General Safety Overview

#### **Article 5.02    *Structured Specific Safety Training***

##### **A.    Machine Shop Safety Training**

1. Who must attend – all team members planning on working in the machine shop
2. Team members must pass a test showing that they know the safety rule.