

# Giving a Hoot About Safety: How to Develop a Comprehensive Safety Program for Your Team



Lower Bracket - Round 4 - Match 2

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# Presentation Overview

- Who are we?
- Why is safety important?
- 5 Steps



# Who are we?

- **Ethan Zhao - Chief Safety Engineer, Team 5401**
- **Aymie Kim - Design Lead and Safety Member, Team 5401**
  
- **Kathy Seidman- Process Engineer at Dow, Team 5401  
Safety Mentor and FIRST Safety Advisor**



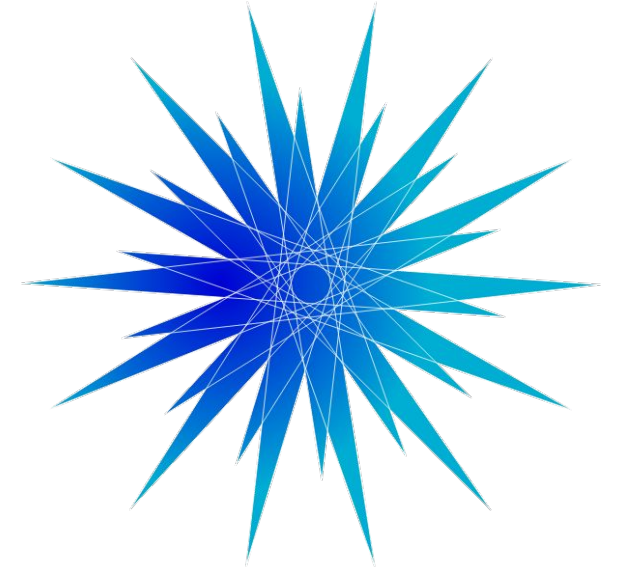
# Why is Safety Important?

- Safety allows our team to work together in a safe environment
- Ensuring our safety while using tools
- Allowing everyone to be aware of their surroundings
- Making sure that we are prepared for emergency situations



# The 5 Steps

1. **Commit to Safety**
2. **Constructing a Safety Binder**
3. **Educate Team Members**
4. **Documenting Safety Incidents and Hazards**
5. **Evaluate Safety Processes Each Year**



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# Step #1: Commit to Safety



# Commit to Safety

- **How can my team commit to safety?**
  - Appointing a Safety Captain
  - Establishing a safety committee
  - Realize there is no downside to safety and you can never be too safe
  - Remain flexible with changing conditions (COVID-19 caused changes in safety planning)

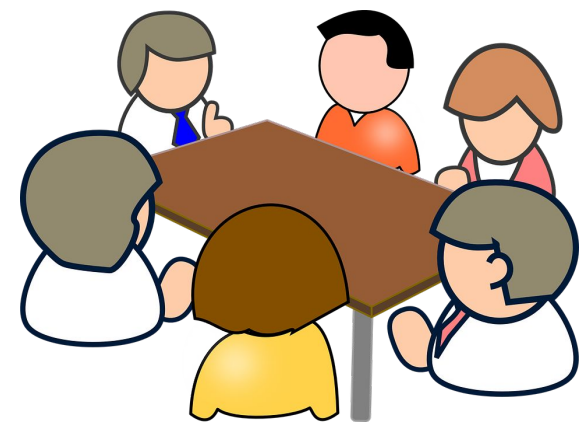
# Committing To Safety



- **Establish a Safety Captain**
  - Your team or safety committee should vote for them.
- **What Does the Safety Captain Do?**
  - They are responsible for overseeing your team's safety program during the on and off-season.







# Commit To Safety

- **Establish a Safety Committee**

- Allows your team to have a sustaining safety program from year to year, season to season.
- The committee should be interest-based, keeping the size reasonable.

- **What Does the Safety Committee Do?**

- They are responsible for setting safety policies and procedures and making sure they are being followed.



# Commit To Safety

- Setting and Enforcing Safety Policies and Procedures
- Ensuring the team has the proper PPE for everyone
- Reviewing and updating the team's safety binder each year
- Adapting the safety protocols as times change



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# Step #2: Constructing A Safety Binder



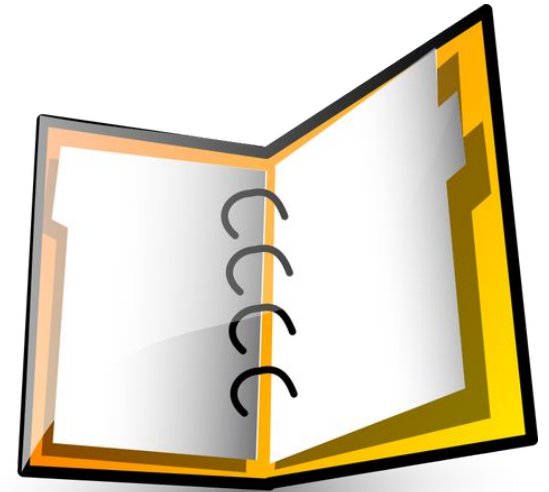
# Constructing A Safety Binder

- **A Safety Binder or Manual houses all of the safety documentation for your team**
- **Why is safety documentation important?**
  - To ensure the entire team is being consistent in its safety practices.
  - For training, if you don't document it in writing--it never happened.
  - Deciding who can use each machine in the shop.



# Constructing A Safety Binder

- **What's in a Safety Binder?**
  - Safety Rules & Procedures
  - Training
  - Emergency Plans/Procedures
  - Injury and Near Miss Reports
  - Safety Issue Reporting Log
  - PPE Inventory/ Checklist
  - Risk Assessment of machines or tools you use
  - SDS Sheets



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# Step #3: Educate Team Members



# Educate All Team Members

- **This will set the team's expectation for safety from the very beginning**
- **Hold a safety meeting at the the start of every year/season with the entire team where you go over:**
  - Broad safety rules that apply to the entire team
  - The safety reporting and injury/near miss reporting log
  - Your team's Emergency and Evacuation Plans
  - Where your safety equipment is



# Educate Team Members

- **On an as-needed basis, provide more specific safety training on an individual or small group basis**
  - Students working on machines or power tools will need specific training for each machine or power tool
  - Students working on robot assembly will need specific training such as battery spill cleanup etc.





# Step #4: Documenting Safety Incidents and Hazards



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# Documenting Safety Incidents and Hazards

- **Why Document An Incident?**
  - Allows team to update safety conduct to prevent future incidents and injuries by reviewing and forming corrective actions.
  - Discuss at the next team meeting when an incident occurs so the whole team can learn from that experience



# Documenting Safety Incidents and Hazards



- **Ways to Document**

- Injury report forms  
(OSHA's form 300 is a good example)
- Created a database with all the injuries from injury report forms



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# Step #5: Evaluate Safety Processes Each Year



# Evaluate Safety Processes Each Year

- The safety committee should look for common issues that occurred in the season and develop measures to prevent them from occurring in the future
- Regularly check the CDC website for most up-to-date Health recommendations
- Check out other teams safety programs to see what you can add to yours
- Ask the FIRST Safety Advisers or the UL Safety Judges at your competitions for things to add to your program



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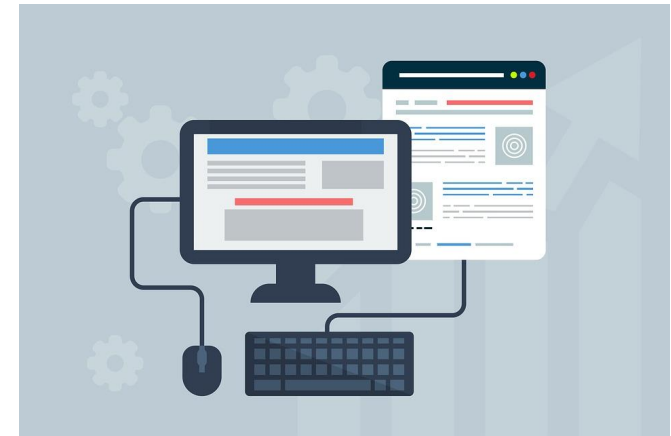


Safety Website



# Team Website

- **We have sections on our team website dedicated to safety**
  - Safety Outreach  
<http://team5401.org/safety-outreach/>
  - Safety Binder  
<http://team5401.org/safety-binder-2/>
  - COVID-19 Health and Safety Guidelines  
<http://team5401.org/covidhsg/>
  - COVID-19 Safety Measures  
<http://team5401.org/covidhsg/>



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# Final Thoughts





# Final Thoughts

- **Safety basics come before anything else**
- **Have a line of succession--train a Deputy Safety Captain**
- **Seek out teams noted for safety excellence and ask them for guidance**
- **Find a Safety Mentor for your team**
  - Can be a safety professional or someone who is just well versed in safety practices and procedures of a shop/lab/factory setting



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Questions?

