

Tips for Pit Crew and Competition

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Preface

Competition can be stressful, especially when you have to look and make sure every device and wire on your robot is as it should be.

So here are some tips for the electrical pit!

Tips

1. Be sure that you know your robot!

1. If you were chosen for the pit crew, you probably know a bit about your robot.
 1. This means that if asked by a judge, alliance member, or even just a visitor, you should be able to answer any question about your robot.
 2. If a problem electrically occurs, you should be able to identify and attempt to fix it before your robot goes back to play

2. Always keep Spares!

1. You never know when the end effector of your robot might fall off, and keeping a spare of each major subsystem on your robot can save a LOT of time
 1. For electrical, this can include wiring the subsystem exactly as it is on the robot to avoid confusion
 2. You can also have extensions for wires, CAN and power, in case of any sort of emergency as it is easy to prep and store
 3. Spares for devices are really useful if any device on the robot fails

3. Trouble-Shooting

1. Eventually, when something electrical goes wrong, you need to know how to act and when you can act
 1. Usually, if the issue arises as a result of the robot breaking, that is much more prioritized than Electrical, as you can't wire something that isn't fixed
 2. Be sure to prep in the meantime!
2. If a device isn't giving off the right status lights, be sure to trace the wire that connects to it.

1. Try and have a basic memorization of your wire movement and what connects to what
2. I would recommend labeling wires with heatshrink to maximize

time



3. Make sure that all devices are seen on Phoenix Tuner and functional (systems check)