

igKnightion Robotics – Electronics Team Member

Reports To: Team Captain(s), Electrical Mentor(s), and Lead Mentor(s)

Role Overview

An electrical team member promotes and communicates the team's mission and vision. They support the team by wiring, organizing, and maintaining the robot's electrical systems to ensure safe, reliable, and efficient performance during robot operations.

Key Responsibilities

- Follow all team safety procedures and be on time for practices and meetings.
 - Install and maintain all robot electrical components.
 - Ensure neat and labeled wiring for easy troubleshooting.
 - Safely use hand and power tools under mentor guidance.
 - Update electrical diagrams and maintain wiring schematics for reference and repair.
 - Collaborate with build and programming teams to integrate electronics.
 - Inspect, troubleshoot, and repair mechanical or electrical components.
 - Prepare and maintain spare parts inventory.
 - Keep workspaces organized for optimal work efficiency.
 - Help promote our team as needed.
 - Assist other sub teams as needed.
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Skills & Qualifications

- Interest in robotics and engineering concepts.
 - Willingness to learn, actively listen to instructions and feedback from leadership, and maintain a good attitude.
 - Ability to follow diagrams and solve problems.
 - Teamwork, communication, and organizational skills.
 - Attention to detail and commitment to safety.
 - No prior experience required; training provided.
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Time Commitment

- **Preseason (Fall):** approx. 4-6 hrs/month (training, safety, small projects). Additional hours if needed.
 - **Build Season (Jan–April):** approx. 13 hrs/week (robot build, wiring, testing). Additional hours if needed.
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Benefits

- Hands-on experience with electrical systems.
- Develop problem-solving and troubleshooting skills.
- Learn wiring techniques.
- Direct contribution to robot performance and safety.
- Be part of a collaborative, high-energy FRC team environment.