

igKnighthood Robotics – Robot Build Team Member

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

Role Overview

A robot build team member is responsible for assembling the robot's mechanical structures and installing/maintaining electrical systems. Ensures the robot is structurally sound, fully powered, and competition-ready while collaborating with other sub teams as needed.

Key Responsibilities

- Follow all team safety procedures and be on time for practices and meetings.
 - Construct and assemble robot frames, mechanisms, and subsystems.
 - Install, wire, and organize motors, controllers, sensors, and pneumatics.
 - Safely use hand and power tools under mentor guidance.
 - Follow technical drawings, schematics, and wiring diagrams.
 - Collaborate with programming team to integrate electronics.
 - Inspect, troubleshoot, and repair mechanical or electrical components.
 - Maintain build space, tools, spare parts, and batteries.
 - 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 mechanical design, fabrication, robotics, or electronics.
 - Willingness to learn safe use of tools and wiring.
 - 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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See page 2

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