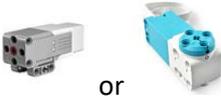


Robot Design Summary

Robot Facts

| | | | | |
|--|--|---|--|--|
| Robot's Name | | | | |
| Favorite Mission | | Maximum Score | | Typical Score |
| Favorite Robot Feature | | Most Innovative Robot Feature | | |
| How often does your robot or its attachments break? <i>(Check One)</i> | Frequently <input type="checkbox"/> | Fairly Often <input type="checkbox"/> | Occasionally <input type="checkbox"/> | Almost Never <input type="checkbox"/> |
| How often does your robot get stuck on the field and you have to retrieve it by hand? <i>(Check One)</i> | Frequently <input type="checkbox"/> | Fairly Often <input type="checkbox"/> | Occasionally <input type="checkbox"/> | Almost Never <input type="checkbox"/> |
| How many Motors and Sensors are on your robot? <i>(See the Robot Game Rules for allowable types)</i> | | | | |
| Large Motors  | | Medium Motors  | | Color / Light Sensor  |
| Ultrasonic Sensor  | | Touch Sensor  | | Gyro / Angle Sensor  |

Insert a photo of your robot here with the most innovative attachment.



Team Number:

Team Name:

Robot Design Summary

Design Details

| | |
|--|--|
| <p>Fun: Describe the most fun or interesting part of robot design as well as the most challenging parts. If your team has a fun story about your robot please feel free to share.</p> | |
| <p>Strategy: Explain your team's strategy and reasoning for choosing and accomplishing missions. Talk a little bit about how successful the robot was in completing the missions that were chosen.</p> | |
| <p>Design Process: Describe how your team designed their robot and what process they used to make improvements to the design over time. Briefly share how different team members contributed to the design.</p> | |
| <p>Mechanical Design: Explain the robot's basic structure, how the robot moves (drivetrain), what attachments and mechanisms it uses to operate or complete missions, and how your team makes sure it is easy to add/ remove attachments.</p> | |
| <p>Programming: Describe how your team programmed the robot to ensure consistent results. Explain how the team organized and documented programs. Mention if the programs use sensors to know the location of the robot on the field.</p> | |
| <p>Innovation: Describe any features of the robot's design that the team feels are special or clever.</p> | |



Team Number:
Team Name:

Robot Design Summary

Program Summaries

What can your robot do? List four (4) programs you plan to run during the tournament.

Programming Language Used: MINDSTORMS EV3 SPIKE Prime OTHER _____

| Program Name | Mission(s) Accomplished | Robot Actions | Attachments Used | Program Structure (Architecture) | Mechanical and/or Sensor Feedback Used | Mission Success Rate |
|---|--|--|--|---|--|--|
| <i>What is this program called in your robot?</i> | <i>List the missions your robot will accomplish when you run this program.</i> | <i>List the types of actions performed during this mission (Forward / Turn / Lower attachment / etc.) You may include a more detailed outline and/or path diagram on a separate sheet.</i> | <i>Do you add anything to your robot while running this program?</i> | <i>List the types of programming commands used [actions (start motor, read sensor, etc.), loops, do until, switches (if-then), subroutines (MyBlocks), parallel programs, etc.]</i> | <i>Does your robot make decisions based on input from a sensor or mechanical feature? If yes, explain how the input is used.</i> | <i>How often does your robot accomplish the mission(s)? Show the Judges any data you collected from your trial runs!</i> |
| EXAMPLE From HYDRO DYNAMICS | Fountain | Drive forward. Lower arm to release Big Water. Reverse back to base. | Arm | Forward in Rotations | None | Fairly Often (85% from data) |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |



Robot Design Summary

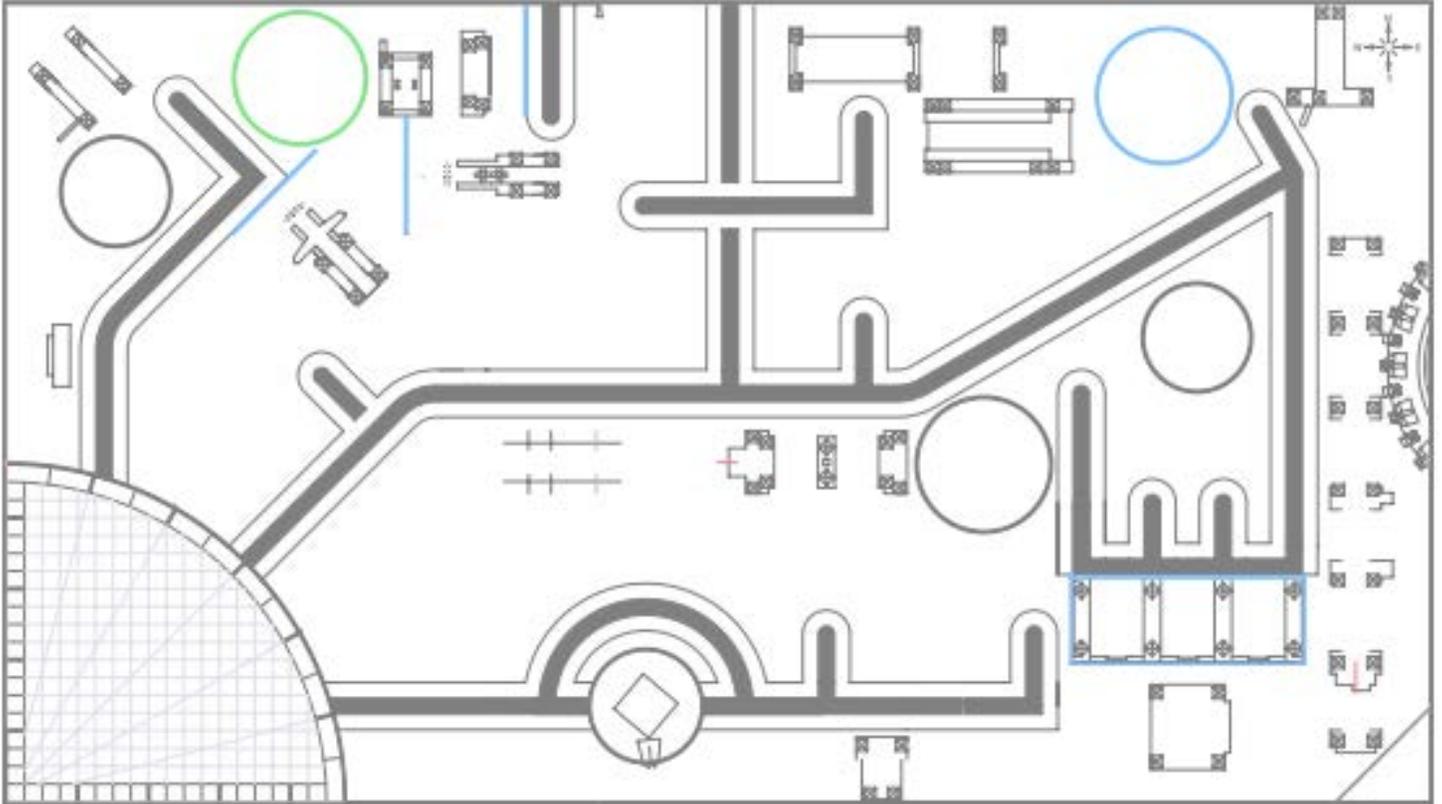
Best Program Detail

Team Number:
Team Name:

Program Name _____

Robot's Best Program Path Diagram

Create a robot Path Diagram for the best program you're robot can run. Sketch the path the robot takes as it executes the program. Each time the robot stops or takes an action, use the diagram to show what the robot is doing. Show the path diagram for your team's best program to the Robot Design Judge during your team's judging session.



Program Description

Explain each Path Diagram by showing your code, pseudocode (written outline), flow chart, or some other way. Assume the Judges have never seen the language you're using to code. How can you help them understand how your program works? (Use the back or additional pages if needed)