ROBOwhizards

Team FLL 5704

Peter, Julien, Ben, Chloe, Xing Hua & William

Our six team members are from Broomall, Newtown Square, Ardmore and Havertown, PA. Our ages range from 10 to 13, and we are all homeschooled.

We have a head coach (Dana Swieson), a project coach (Andrea St. Amour) and a Robotics/Electrical Engineer mentor who is a former ROBOWhizard (Caleb Swieson).

We are part of Science Resources. This is the 10th year that the ROBOWhizards have participated in FLL.

Community

Each year, we go out into the community to promote FLL, robotics, and the fun of science & engineering. We run open houses at local libraries and universities, where we show our robot, teach the public about building robots, structural integrity, programming, and FLL. Because of these events, some people have started their own FLL teams.

Project

https://sites.google.com/site/seniorssharestories/

The Treasure Keepers of Delaware County is an audio blog created and maintained by the ROBOWhizards where anyone can go to hear senior citizens of Delaware County tell their stories about what life was like in the past. The goal is for kids to record and preserve the memories of senior citizens for future generations to enjoy.
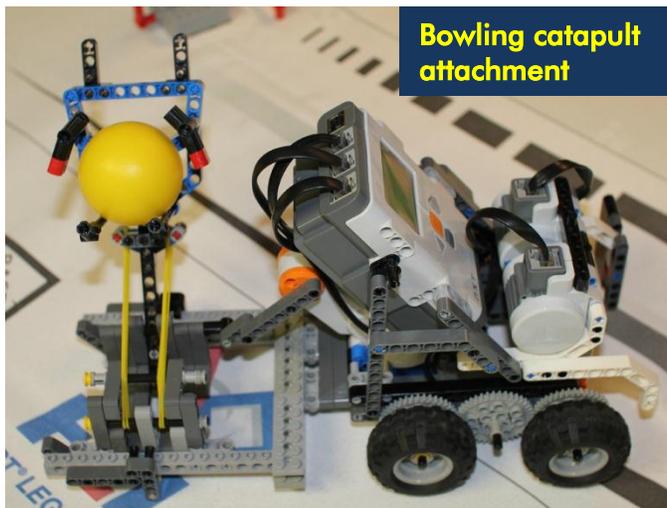
Robot

At the beginning of the season, we created three different driving bases. After testing them on the field, we chose the best one and incorporated some features from the others. We made a copy of it, while updating and improving it.

Our driving base has:

- NXT brick
- Two NXT drive motors
- 4 balloon tires geared 1:1
- Light sensor for line-following
- Structural frame w/built-in jig
- Universal attachment bar
- 3rd motor to drive attachments

Driving base w/ weight-lifting attachment
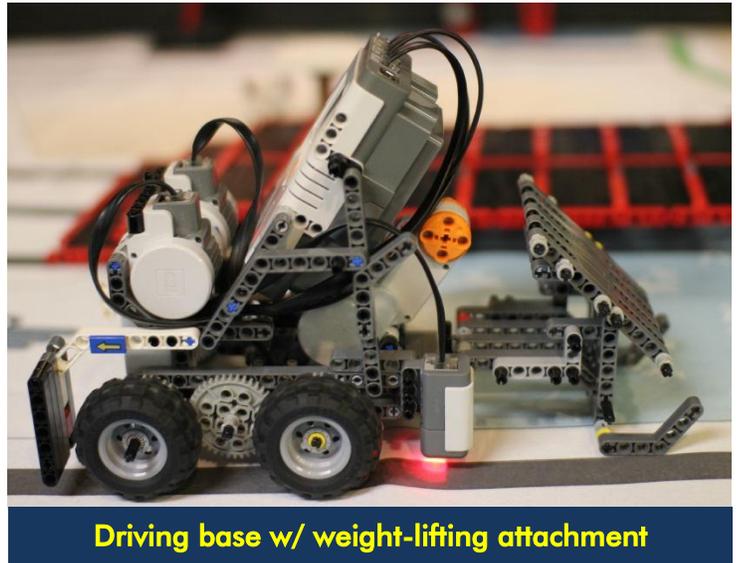
ATTACHMENTS We built many mechanisms to try to accomplish the missions. They are all easily attached and removed from the driving base because of our attachment bar. We use 7 of them in the competition, some for multiple missions.

One-way gate attachment

Chair & Garden delivery attachment

Bowling catapult attachment

We program our robot:

- Using Robolab 2.9
- Wrote a line-following program
- Wrote a "corrected-straight" program
- Use Subvis

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