

LIGERBOTS

FIRST® Robotics Team 2877

Newton North and South High Schools



Welcome, New LigerBots!

LIGERBOTS FIRST Robotics Team 2877



Important Dates & Info (more to follow)

FLL Competition: *Newton North, December 17th-18th*

Competition Dates:

- **Week 3, North Shore:** *Reading Memorial High School, March 18th-20th*
- **Week 4, Greater Boston:** *Revere High School, March 25th-27th*

Forms:

- **Due November 18th! - Your students will not be able to participate without them!**
- **LigerBots Media Release/Participation form**
- **LigerBots Carpool Form**
 - Parents will likely not be allowed to spectate at competitions, so students will need to carpool with a coach
- **Family ID** (*high school website*)
- **FIRST Inspires** (*firstinspires.org*)
- **Individual Competition forms** (*tbd*)

Who Are The LigerBots?

FIRST FRC Team 2877

1. ***Combined Newton North and South High Schools***
2. ***Part of the FIRST Robotics Competition***
 - FIRST (For Inspiration and Recognition of Science and Technology) is a non-profit global robotics organization that prepares students for the future through STEAM.
3. ***Other FIRST competitions include:***
 - FIRST LEGO league (grades 4-8)
 - FIRST Tech Challenge (grades 9-12)

Two schools, one team!

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Introduction to Our Team

- ***Primarily a student led team***
- ***Executives:***
 - CMO: Daniel Ben-Levi, CSO: Kavya Ajaykumar, COO: Brian Gomez
 - Co-CTO's: Ammar Ali Asghar, Jake Freed
- ***Head Coaches:***
 - John Fitzpatrick, Noa Rensing
- ***Coaches/Mentors:***
 - Paul Rensing, Pam Wright, Bruce McVittie, Jay Schwarz, Jonathan Young, Jordan Schwarz, Phil Golando, Diane Levy, Jordan Kraus, Charles Frankston, Greer Swiston, Claire Wadlington, Chuck Tanowitz, Carly Buchanan, Dan Lavoie, Mark Zeren

Many of our coaches and mentors have had students on the team, please let us know if you would like to volunteer! We are always looking for more help!

Achievements

Achievements

- Attended World Championships: 2009, 2014 ,2015, and 2018
- District Chairman's Award: 2015
- District "Innovation and Control": 2016
- Engineering Inspiration Award: 2018
- District Chairman's Award: 2020
- Engineering Design Award: 2021

- **Safety Animation Award 2017/18 >>>**

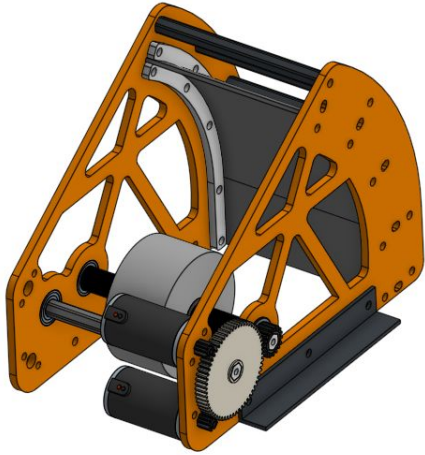


Recent History

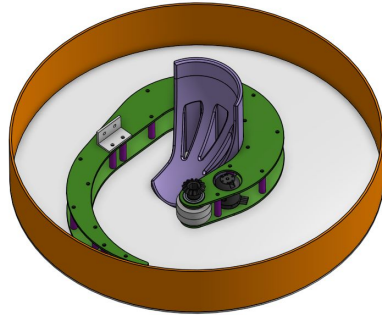
- **FRC During COVID**
 - *Infinite Recharge at Home (2021 game)*
 - *Game Design Challenge*
 - *Innovation Challenge*
- AMP (Awesome Mentorship Project)
- cAMP (Camp AMP)
- Provisional Patent
 - *For the Innovation challenge, our team designed an electronic “whistle” for deaf sports players*
- Diff Swerve Project
 - *A new type of robot drivetrain that we tested*



Current Events



Designs for a new outreach robot



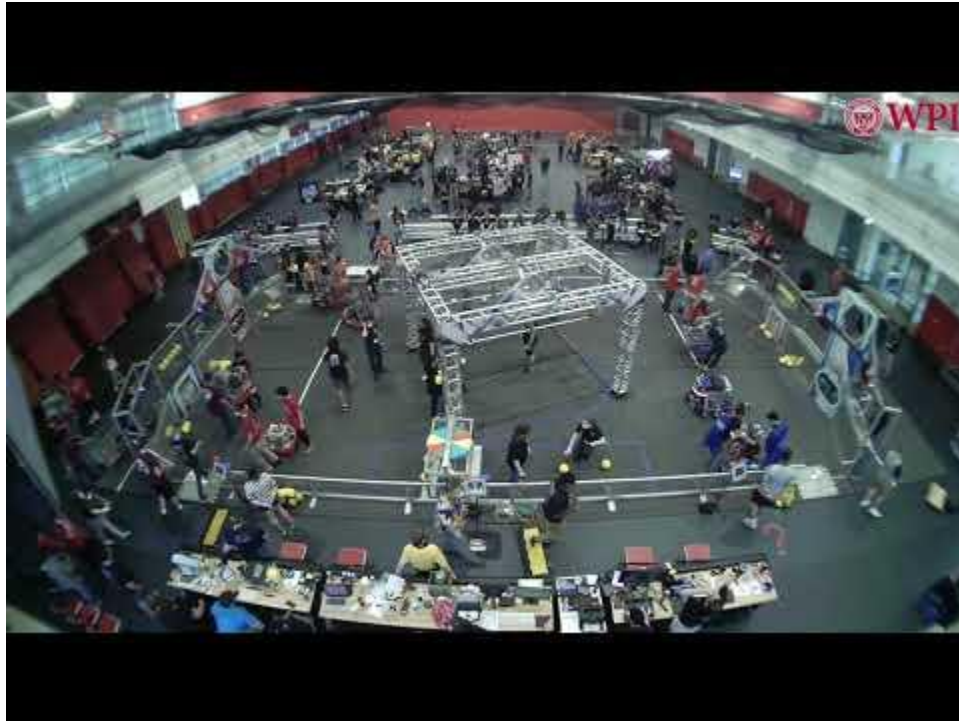
Newton's Pumpkin Smash at City Hall with the Mayor



2019-20 Game



2019-20 Match



2021-22 Sneak Peek



Outreach and FLL

- ***We are ambassadors for STEAM***

- *Building a robot is one aspect*
- *Interacting with the community*

- ***FLL = FIRST LEGO League***

- Grades 4-8 - Future LigerBots
 - Support/encourage new teams
 - Train coaches, mentors

- ***FLL Competitions***

- Eastern MA State Championship: Saturday, Dec 18
- At Newton North
- Setup starts on Friday, December 17th
- Adult and student volunteers are needed!



These kids are our future!



Breakdown of the Season

■ **Fall/Preseason**

- Training, Projects, Outreach
- Monday & Thursday meetings

■ **Winter/Build Season**

- 6 Week period from Kickoff Jan 8th
- We will meet 5-6 days a week (3-6 hours)

■ **Competition**

- 2 District competitions
- If we qualify
 - *NE Championship - tbd*
 - *FIRST World Championship - Houston, TX*

■ **Spring/Postseason**

- More fundraising, community outreach, training
- Planning for next year
- Monday & Thursday meetings



Meeting Schedules

■ *Pre- and post-build season*

- Mondays at South, room 139, 6:30 – 9:00 p.m.
- Thursdays at South, room 9170, 6:30 – 9:00 p.m.

■ *Build season (January 8 – February 20, 2017)*

- All build done at South. All times subject to change.
- Monday–Thursday 6:00 – 9:00 p.m.
- Friday 4:00 – 9:00 p.m.--break for dinner (If COVID rules allow)
- Saturday 9:00 a.m. – 1:00 p.m.
- Consistency is as important as quantity
- **Like most things, what you get out depends on what you put in!**

We are unsure what the schedule will look like this year, but will post an update as soon as possible.

Participation Forms

- ***Create an account at ligerbots.org***
 - Register as a parent to receive weekly email and other team communications
- ***Create an account at firstinspires.org***
 - Register yourself with FIRST
 - Link your account with your student's via your student's email address
 - Approve your student's participation

Training

- **Technical training classes and workshops**

- Computer Aided Design
- Introductory and Advanced programming
- Intro to mechanical systems
- FRC electronics/controls
- Machine shop safety
- Use of tools
- Engineering basics

- **Business and outreach workshops**

- Grant Writing
- Public Speaking
- Accounting
- Event Planning/Leading
- Work with engineering professionals
- Learn how to run projects from the ground up
- Make a head start on skills for college and beyond
- Build a portfolio for professional interviews, etc.



It's the only high school sport where everyone can go pro! - Kamen

A word from the coaches



Parent Opportunities

- *While the team is primarily run by students, it needs parents/mentors to function and grow.*
- *All help is appreciated, even if it is just one project.*
- *There is plenty of work to do both during and outside build season*
- *There is plenty to do to suit anyone's interests, abilities and time!*

Mentoring

■ ***Business***

- Recruiting
- Grant writing and proposals
- Sponsor connections
- Graphic design and presentation
- Communications and publicity
- Finance and bookkeeping
- FIRST awards submissions

■ ***Robot building support***

- Mechanical
- Electrical
- Software
- CAD/Creo

■ ***During competitions***

- Assist with scouting
- Assist/supervise in the stands, pit
- Volunteer with FIRST
- Come watch, cheer, and have fun!

Year Round Opportunities

■ ***Advertising and Communications***

- Publicity and outreach communications to the community
- Ongoing communications to current sponsors

■ ***Fundraising and Finances***

- Sponsorship presentations and new sponsor introductions
- Management of team expenses (there are a lot)

■ ***Build team skills***

- Workshops and smaller build projects

■ ***Community events***

- Village days and “Meet the Robot”

■ ***“Spirit”***

- Graphics, t-shirts, mascot

■ ***Team Awards Dinner/ Sponsor thank you event***

Build Season Opportunities

■ ***Mentor the robot builders***

- CAD - OnShape
- Mechanical
- Electrical
- Software

■ ***Mentor the awards submission teams***

- Chairman's Award
- Video production
- Promotional material

■ ***During competitions***

- Assist with scouting
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Build Season Friday Dinners

- ***Each Friday, meetings run from 4-9 p.m. and parents are asked to volunteer to provide dinner for the team (if COVID rules allow)***
- ***Like carpooling, there will be a sign-up document***
 - We will need a parent coordinator
- ***This doesn't have to be a solo event; multiple families can volunteer together***
- ***A normal dinner serves approximately 50-70 people***
- ***Plans are in the works to get food donations from local restaurants.***
 - If you can solicit donations, please do! (And please let the executive board know so there are not duplicate requests.)

Carpools

- ***Throughout the year, drivers are needed to get students between the high schools (pick up/drop off at both schools)***
- ***During build season, meetings are 6 days a week all at South***
- ***Roughly 10+ students need a ride each way***
 - 2 – 3 drivers needed in each direction - more for competitions
- ***Drivers of official carpools have to be vetted by schools: CORI/SORI and insurance***
- ***Sign up page is <https://ligerbots.org/carpools.php>***
- ***We need parents for this!***

Financial Support

■ ***Grant applications***

- Help identify grant opportunities
- Help write applications

■ ***Sponsorships***

- Small or large business - who is your employer?
- Please contact Greer Swiston for more information

■ ***Individual***

- Donation link on our web site - Paypal
- Check to Newton Schools Foundation
 - *Be sure to write "The LigerBots" on the check memo field, so that the donation is designated for us.*
- Tax deductible to the extent allowed by law

■ ***In-kind donations***

- Food, supplies, tools, materials, etc
- Speak with a coach

We need you!

Carpools!

Team dinners!

Fundraising!

Team Organization!



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Resources

Communications

Weekly emails

Blog, twitter, social media

Students will use Slack

Other resources

Web site

FAQ

FIRSTInspires

NEFIRST



execs@ligerbots.com

Questions?

