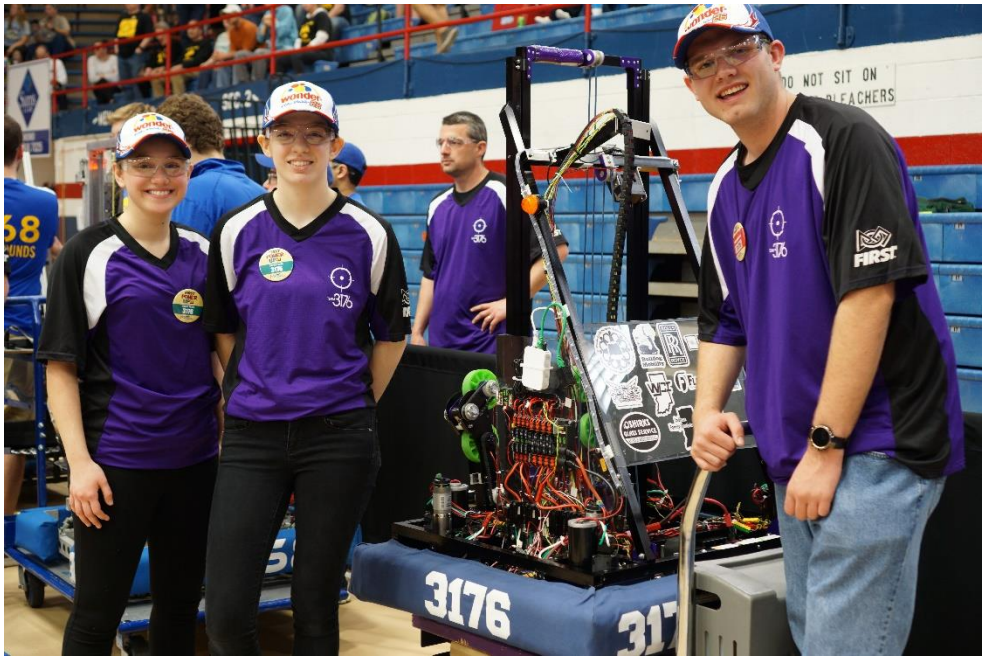
Team 3176

Purple Precision

Parents Meeting 18 September 2018

Agenda

- Introductions
- Team 3176 / *FIRST* Robotics - *What's it all about?*
- Schedule
- Competition
- Budget
- Sponsorship
- Activity Letter
- Volunteer Opportunities
- Q&A and Shop Tour



These slides will be available on the team website following the meeting.

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Introductions

Team 3176 represents Brownsburg High School in the series of *FIRST* Robotics Competition (FRC)

***F**or **I**nspiration & **R**ecognition of **S**cience & **T**echnology*

Student-led by the Student Advisory Board (SAB) and guided by Team Sponsors & Mentors

Who are we?

- Rookie season in 2010
- Overlap with PLTW topics but different in key aspects
  - **Student-led**, **small-business** mentality, **real-world experience** in a time-critical environment, **student initiative** critical
  - Sustainability – Researching / Learning Best Practice / Documenting
- Comprised of ~60 students & ~10 mentors working in various sub-teams
  - Mechanical Design / CAD
  - Electrical / Programming
  - Finance / Business / Marketing
  - Comms / Outreach / Logistics
  - Multi-Media / Graphic Design

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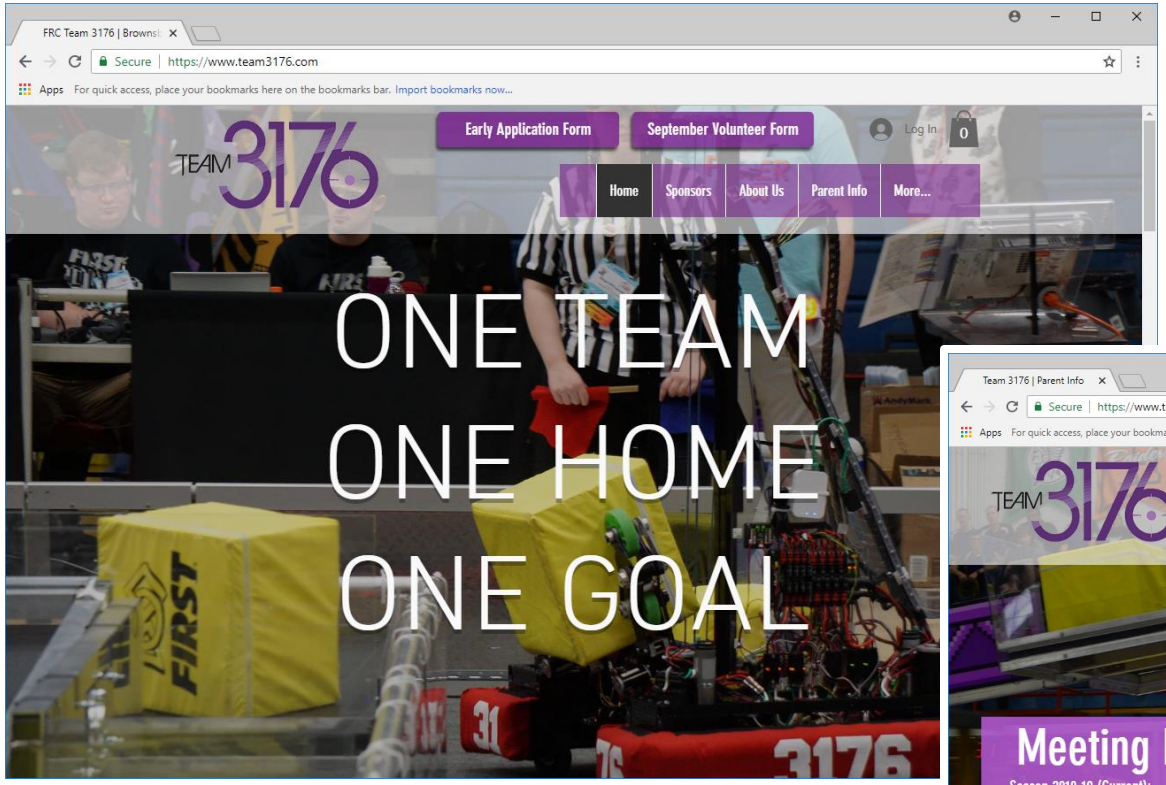
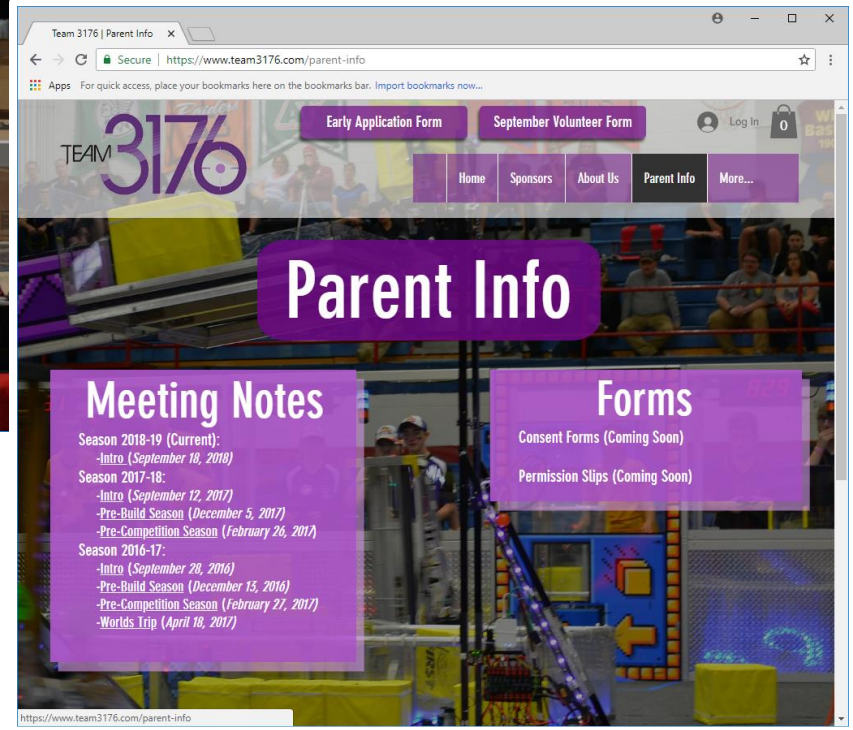
New Team Website





www.team3176.com

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FIRST Organization

Globally 530,000+ students / 61,000+ teams

3,660 FRC Teams

91,000+ Participants (Ages 14-18; Grades 9-12)

Over $80 million in scholarships opportunities

http://firstinspires.org

Jr.FLL Junior FIRST LEGO League | FLL FIRST LEGO League | FTC FIRST Tech Challenge | FRC FIRST Robotics Competition

INDIANA FIRST indianafirst.org

"FIRST is more than robots. The robots are a vehicle for students to learn important life skills. Kids often come in not knowing what to expect – of the program nor of themselves. They leave, even after the first season, with a vision, with confidence, and with a sense that they can create their own future"

DEAN KAMEN

Team 3176 Yearly Schedule

Off-Season – August to December (1-2 mtg / wk)

Preparation for Build (Skills, Funds, Plans)

FRC Kick-off – 5 January 2019

Build Season - January to March (4-5 mtgs / wk)

"Stop Build" Day – 19 February 2019

Competitions - March & April

District, State, Worlds

Close Out – May

Planning – May - July

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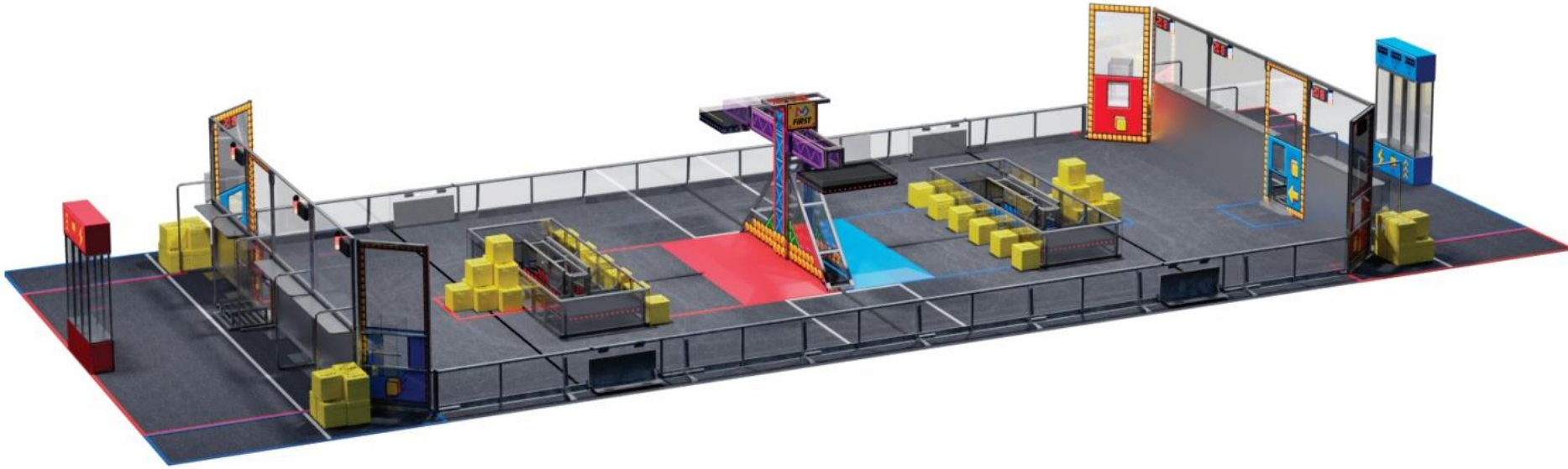
Competition Schedule

- IndyRAGE Match – 29 September
  - Perry Meridian High School
- CAGE Match – 20 October
  - Southport High School
- **2019 District Competitions** (2 of 3)
  - 9-10 March (Penn HS, Mishawaka)
  - 23-24 March (Jefferson HS, W. Lafayette)
  - 29-30 March (Center Grove HS)
- **2019 Indiana State Championship**
  - 12-13 April (Kokomo Memorial Gym)

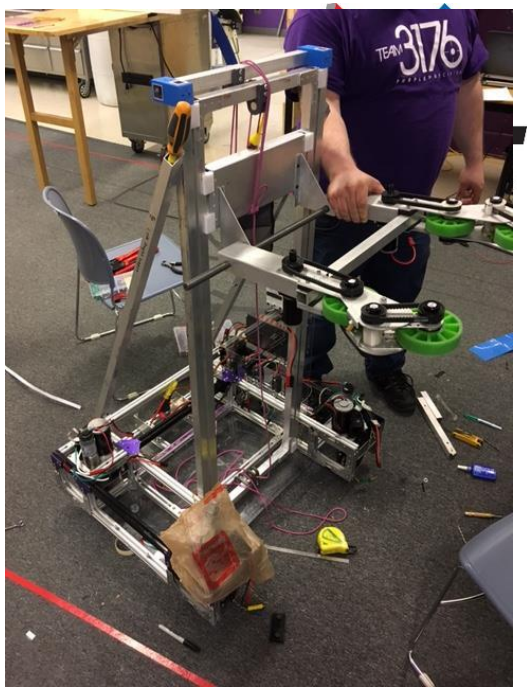
Robot Competition – Power Up!

- 3v3 alliance competition (red / blue)
- Match Timing - 0:15 Autonomous / 2:15 Tele-Op
- 3 main tasks
  - Deliver Power Cubes to the Switch (low) and Scale (high)
  - Fill the Vault for Power Ups
  - Climb the Scale
- Qualification Rounds / Elimination Rounds



2018 Build Season

- Video summaries published weekly
- More use of CAD *before* fab & assy
  - Several design interations before cutting metal
  - Recognized skill gap in multi-user assemblies – capturing learning
- **Swerve** drive v2.0! – complex drive system
- Investment in *re-usable* components
  - Most of Robot Hardware / Inventory budget is usable on future robots (e.g., Talons, encoders, gears, NavX)
- Built ***TWO*** robots again
  - Test out design concepts on “practice” robot
  - Refine for “competition” robot



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2017-18 Team Budget Performance

Income	Budget	Actual	*Difference*
Student Fees	$15,000	$17,925	$2,925
Corporate Sponsors	$10,000	$18,650	$8,650
Donations	$1,200	$120	($1,080)
Foodie	$250	$0	($250)
Total	**$26,450**	*$36,695*	$10,245

Expenses	Budget	Actual	*Difference*
Match Registration	$9,350	$9,350	$0
Transportation	$7,000	$10,171	($3,171)
Robot	$4,500	$6,228	($1,728)
Marketing	$1,000	$750	$250
Team Uniform	$2,500	$3,840	($1,340)
Inventory/Tools	$2,000	$3,014	($1,014)
Website	$100	$0	$100
Total	**$26,450**	*$33,352*	($6,902)

- Greatly exceeded Corporate Sponsorship goal!
  - Driven by requirement for Sponsorship visits – the whole team particiated
- “Extra” Income allowed us to
  - Waive additional student travel fees for overnight trip to Mishawaka
  - Provide team lunches at every competition
  - Invest in additional robot hardware capability & tools

Team Uniforms

- Last year the team established a team uniform that can be used for <u>all</u> the years a student is on the team
- More durable shirt than standard T-shirt
- New students will receive two shirts for the 2-day competitions
- Students will need to take care of the jerseys or purchase a new one

2018-19 Team Budget Projections

- This year's budget is expected to be similar to last year
  - New Uniform fee for only new team members
  - Planning for storage/organization costs for the team due to construction & some improvement in team capital (tools, etc.)
- Student Fees for 2017-18 will be **$250** (uniform fee $50)
  - **Due 5 November 2018** – *take time to make sure the team is the right fit*
  - Sibling fees are $200 if a family has multiple students on the team
  - Addl Transportation for State or Worlds Competition will be assessed if team qualifies
- Majority of Indy area FRC teams fees are $300 - $600
- ***Please*** contact the Team Co-Sponsors if you have ***any*** questions

Sponsorship Network

- **Corporate sponsorships** are key to the team
  - Help fund activities
  - Provide opportunities for community engagement
  - Exposure to business operations for students
  - Future employment for students
- Personal connections are key to successful sponsor visits
- Sponsorships can be cash or in-kind materials & services
- Students are required to participate in sponsor visits to broaden team experience

Thank you 2018 Sponsors!

GOLD

FAB2ORDER INDIANAPOLIS

ROLLS ROYCE

CSI CLOSURE SYSTEMS INTERNATIONAL

Nufarm

CORNERSTONE®

MSI PACKAGING INC.

Bulldog Mobility

Indiana Family Dentistry

SILVER

ADELSPERGER ORTHODONTICS

Milestone Innovation Under Construction.

SHIRKS GLASS SERVICE AUTO & RESIDENTIAL

FLEECE PERFORMANCE ENGINEERING

BRONZE

Kiwanis International

Cardinal Elementary School

Home City Ice

ao

alschul orthodontics

WRENCHES, INC

The Walt Disney Company

NUCOR

State Farm Agent Pete Fay

Westwood hospital for animals

CROSS LINE CAGE

In Kind

WATERJET CUTTING OF INDIANA

WCI

ROARK

MemberClicks

regal PLASTIC

COLORS, INC. ANODIZERS OF ALUMINUM

REEVES

DSR

Team Documents

- **Student Handbook *(REVISED)***
  - More detail to set expectations and guidelines
  - Consolidate required forms
- **On-line Student Application *(UPDATED)***
  - Early Appl - Collect data entry (contact info, etc.)
  - Full Application later this fall
- **Business Plan**
  - Key document for team operation
  - Standard across all FRC teams

Varsity Activity Letter

- For the past four years, students have been able to earn Varsity Activity Letter
- Point-based system (100 pts needed)
  - Leadership (SAB, sub-team, drive team)
  - Attendance (Competition / Meetings)
  - Team Outreach Events (Cardinal Engr Night, Relay for Life)
  - Grades
- Status provided throughout the semester to students on progress

Community Outreach / Support

- Team 3176 also works to spread the excitement about Science, Technology, Engineering, and Math (STEM)
- Participate in events throughout the year
  - Cardinal Engineering Night / Science Night
  - Volunteer at Middle School robotics clubs
  - Volunteer at FIRST events (District, State, Worlds)
  - Visits to Adv Manufacturing (Roark / Indiana WaterJet)
  - Team Philanthropy through Polar Plunge / Relay for Life

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Parent Volunteer Opportunities

- Mentor and help with any of the sub-teams
  - Finance/marketing expert, computer programming expert, entrepreneur, graphic artist, etc.
  - Time commitment varies
- Food for Build Season and Competitions
- Coordination of the “Foodie” events with local businesses
- Sponsorship identification / fund drives
- Logistics - moving the robot / pit supplies back and forth

Contact Info

E-mail: team3176@brownsburg.k12.in.us

Team Website

http://www.team3176.com/

Remind Code

@frc3176

YouTube

https://www.youtube.com/user/Team3176

Twitter

@Team3176 @IndianaFIRST

Team Co-Sponsors

Nathan Heidegger & Dawn Mayer

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Questions & Answers and Shop Tour!

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