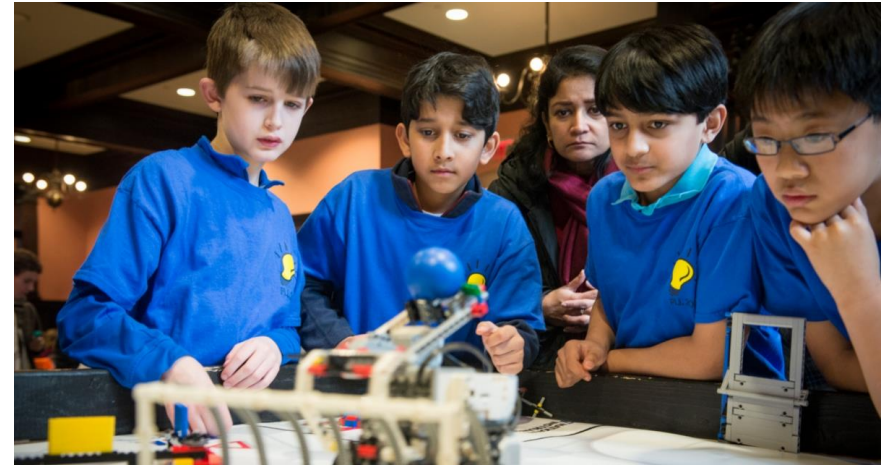


FIRST® LEGO® League



Welcome to New Coach Training



THANK YOU!!!!

FMA-FLL FIRST LEGO League relies on the strength of coaches and volunteers to create a rewarding experience for all students in the region.



What is *FIRST*®?

- It's a competitive *sport*.
- It's *More Than Robots*SM.
- It's a life *experience*.
- It's *opportunity*.
- It's *community*.
- It's *amazing*.

FIRST® Is...

Inspiring youth to become science & technology leaders & innovators, by engaging them in exciting, experiential, Mentor and project-based programs that teach science, technology, engineering, and math (STEM) skills, inspire innovation, and foster well-rounded life capabilities.

**FIRST
LEGO
LEAGUE JR.**



**FIRST
LEGO
LEAGUE**



**FIRST
TECH
CHALLENGE**



**FIRST
ROBOTICS
COMPETITION**



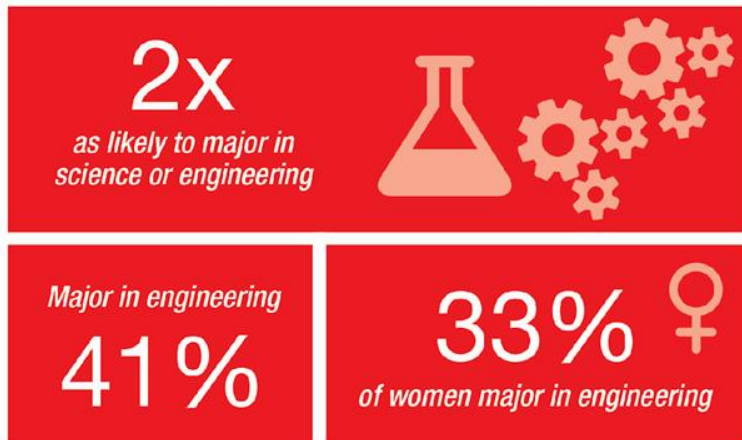
FIRST® Impact: More Than RobotsSM

- ***STEM Awareness, Skills and Intent***
 - Increase the number of students who pursue post-secondary education and careers in STEM-related fields and industries
- ***Innovation and Entrepreneurship***
 - Inspire youth to become leaders and innovators in their field and society
- ***21st Century Work-Life Skills***
 - Enable young people to develop valuable, transferrable, real-world skills, including: teamwork, leadership, creative problem solving, critical thinking, time & project management, and communication/presentation skills

FIRST® IMPACT

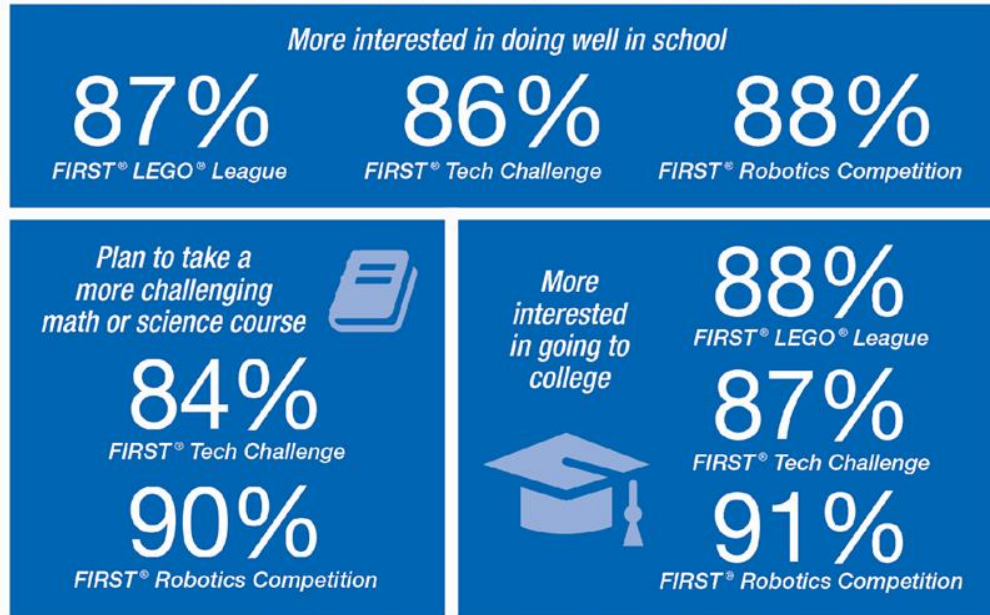
10 years of evaluation data indicates that with participation in **FIRST®** team members are:

STEM MAJOR CITED BY FIRST PARTICIPANTS



Source: Brandeis University, 2005 Evaluation of FIRST® Robotics Competition Alumni

SCHOOL ENGAGEMENT INCREASES FOR FIRST PARTICIPANTS



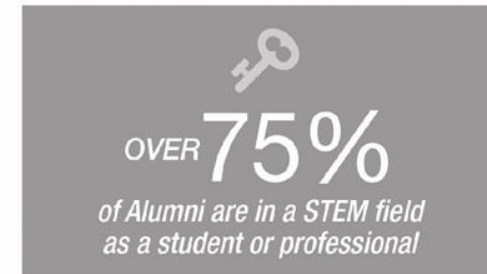
Source: Brandeis University, 2011 FIRST® Tech Challenge – FIRST® Robotics Competition Evaluation and 2013 FIRST® LEGO® League Evaluation

21ST CENTURY WORK-LIFE SKILLS GAINED BY FIRST PARTICIPANTS



Source: Brandeis University, 2011 FIRST® Tech Challenge – FIRST® Robotics Competition Evaluation and 2013 FIRST® LEGO® League Evaluation

FIRST ALUMNI IN STEM CAREERS



Source: FIRST, 2011 Survey of FIRST® Robotics Competition and FIRST® Tech Challenge Alumni



FIRST® At-a-Glance

460K+

students participating
in 2016-2017

230K+

Mentors, Coaches, Judges
& Volunteers in 80+
countries

17M+

Volunteer hours served
in 2016-2017

\$50M+

scholarship opportunities
from nearly 200 providers

>2,600

official events worldwide

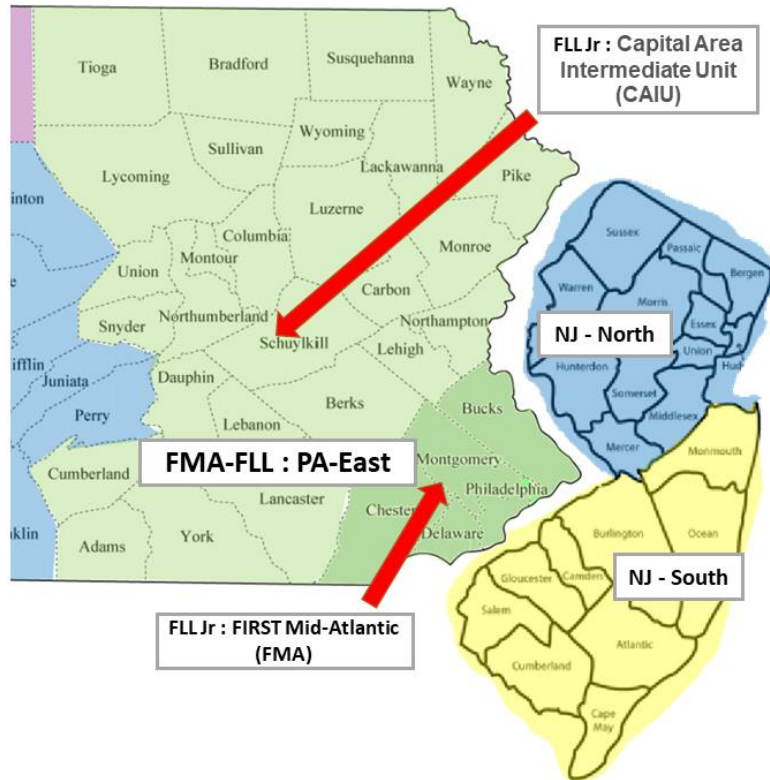
65K+

participants at annual
FIRST® Championship



Regional Scope

FMA-FLL consists of East Pennsylvania



Surrounding Regions Include:

- Delaware
 - Eric Cheek
 - fllds@gmail.com
- New Jersey - North
 - Ernie DiCicco
 - njfl@att.net
- New Jersey - South
 - Eric Milou
 - milou@rowan.edu
- Pennsylvania - Central
 - Janel Vancas
 - mdanel@iu08.org

Who's Who

- FIRST
 - A GLOBAL ROBOTICS COMMUNITY PREPARING YOUNG PEOPLE FOR THE FUTURE
- FIRST Mid-Atlantic
 - Local 501(c)(3) non-profit licensed to run FIRST program in the New Jersey, Delaware and Eastern Pennsylvania
- FMA-FLL
 - FIRST Lego League program run by FIRST Mid-Atlantic
 - Frank Larkin – FLL Director
 - e: flarkin@midatlanticrobotics.org
 - p: 215-823-9593



Consolidated Information

Single Launch Point for all information:

[FIRST Season Page](#)

- ✓ Various Challenge Videos
- ✓ Rubrics help the judges deliberate for awards and provide feedback to teams
- ✓ Awards depends on the tournament size.
- ✓ Mission Model Building Instructions
- ✓ Judging Workflow
- ✓ Participation Rules
- ✓ Robot Game Rulebook
- ✓ Table Build Instructions
- ✓ Challenge Updates (Very important)
- ✓ Think Space Instructions



FMA-FLL Team Education

- FIRST Mid-Atlantic Website [FLL Team Info](#) gathers resources from around the Web.
- ✓ Coaches Required Reading
- ✓ Important FML-FLL Reading
- ✓ EV3 Hardware
- ✓ EV3 Programming
- ✓ EV3 Mechanical
- ✓ EV3 Advanced Programming
- ✓ Challenge Project
- ✓ Challenge Global Innovation





CHALLENGE



Helps children, ages 9 to 14, discover the fun in science and technology while building self-confidence, knowledge and life skills

"I want to build things nobody else has even thought of yet."

Charles Peterson, FLL Team Member (10 years old)





FIRST
LEGO
LEAGUE

EXPLORE

- **INTRODUCES 6 TO 10 YEAR-OLDS** to the fun of science and technology
- **MINI CHALLENGE** based on annual FLL research project
- **EXPLORE**, investigate, design and build model made with LEGO bricks & moving parts
- **CREATE** “Show Me” poster depicting team’s experience
- **LEARN** from and interact with adult mentors



 **FIRST**
MID-ATLANTIC



FIRST
LEGO
LEAGUE

CHALLENGE



FIRST
MID-ATLANTIC



**FIRST
LEGO
LEAGUE**

CHALLENGE

All around us, there are opportunities to play and be active — from open parks to cement courts, in our classrooms, and even when we're waiting in line. But more and more people are not active enough.



FIRST
MID-ATLANTIC



CHALLENGE

What is a Team?

- 2 to 10 Kids ages 9 through 14
- 1 or 2 coaches
- Holding meetings an average of 2-3 days a week for 2 hours per meeting
- Build and program a robot
- Do a research project
- Attend a kick-off event
- Attend 1 weekend qualifier tournament
- If qualified attend the championship tournament.





CHALLENGE

Everyone's Participation Rules



[Coaches Required Reading](#)





CHALLENGE

Tournament Experience

8:00am- Arrive

8:00am- Team Registration

8:30am- Coach Meeting

9:00am- Opening Ceremony

9:30am- Judging Starts

12:45pm- Lunch

1:30pm- Robot Matches Begin

3:30pm- Dancing & Award Deliberation

4:30pm- Award Ceremony

5:00pm- Done!





CHALLENGE

Item	Rookie year	Onwards
Registration	\$299	\$225
Challenge set	Included	Optional (75\$)
EV3 Core Set +Expansion	\$489.95	As needed
Practice table	\$50-\$100	
Miscellaneous (Flare, Snacks, Boxes)	\$100	\$100
T-shirts	\$120	\$120
Qualifier Registration	\$125	\$125
Championship Registration	\$125	\$125
Presentation supplies	\$50	\$50
Total	\$1235 to \$1437	\$895





CHALLENGE

FMA PA-East FLL Challenge Season

Date	Event
May	Team Registration Opens
July - Sept.	Coach Training – Various locations
August 4 st	Challenge Released (FIRST FLL Website)
Oct-Nov	Weekly Coaches Questions Call (stay tuned for details)
November 1 st	Regional Qualifier Tournament Registration Opens (FMA FIRST LEGO League Website)
December	Scrimmage Events
Late Jan. - Feb	Qualifier Events (Number TBD)
Late Feb.	Possible Championship Event
July, 2021	FLL World Festival in Detroit





The Pit



Robot Design Judging



Project Judging



Core Values



Gracious Professionalism
*“Act in a way that
makes your
grandmother proud!”*
Dr. Woody Flowers
Engineering, MIT

Spirit



Flare



Robot Game

