



FIRST
LEGO
LEAGUE

EXPLORE



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...

A Suite of Hands-On, STEM Learning Programs

FIRST LEGO LEAGUE



GRADES
PreK-8

AGES
4-16

FIRST TECH CHALLENGE



GRADES
7-12

AGES
12-18

FIRST ROBOTICS COMPETITION



GRADES
9-12

AGES
14-18

Through a progression of team-based robotics challenges and backed by a global network of mentors, coaches, volunteers, alumni, and sponsors, *FIRST* helps young people discover a passion for STEM and develop the skills they'll need to succeed in today's competitive workforce.

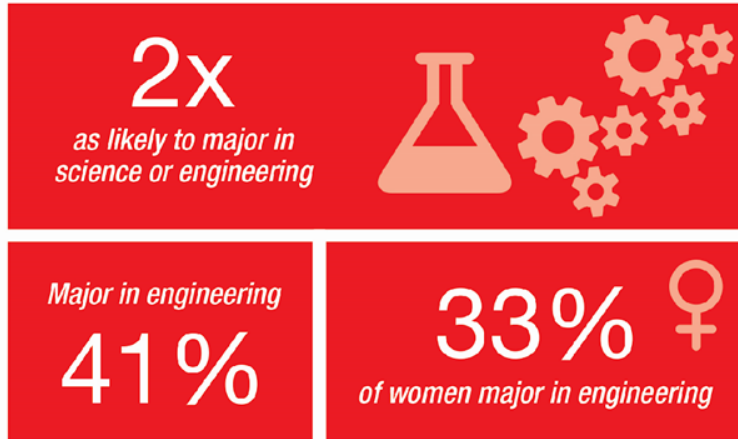
FIRST® Impact: More Than RobotsSM

- ***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

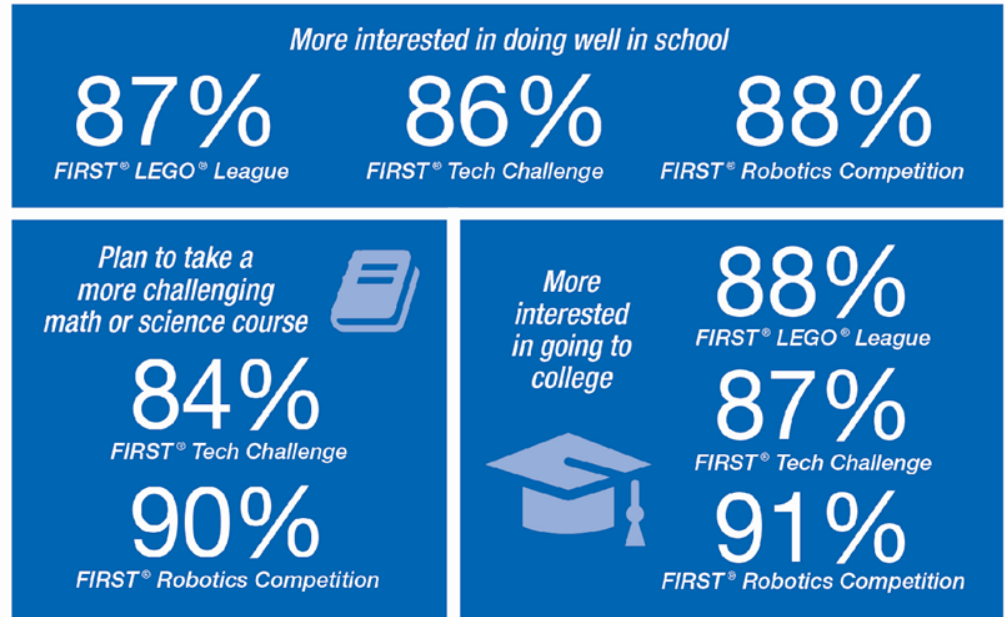
10 years of evaluation data indicates that with participation in **FIRST®** team members are:

STEM MAJOR CITED BY FIRST PARTICIPANTS



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

SCHOOL ENGAGEMENT INCREASES FOR FIRST PARTICIPANTS



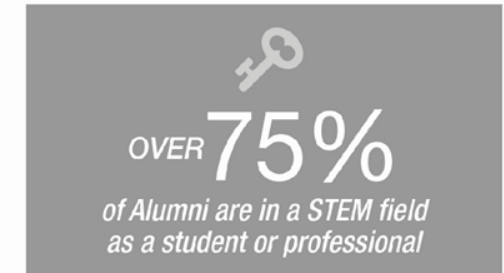
Source: Brandeis University, 2011 FIRST® Tech Challenge – FIRST® Robotics Competition Evaluation and 2013 FIRST® LEGO® League Evaluation

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



EXPLORE

- **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

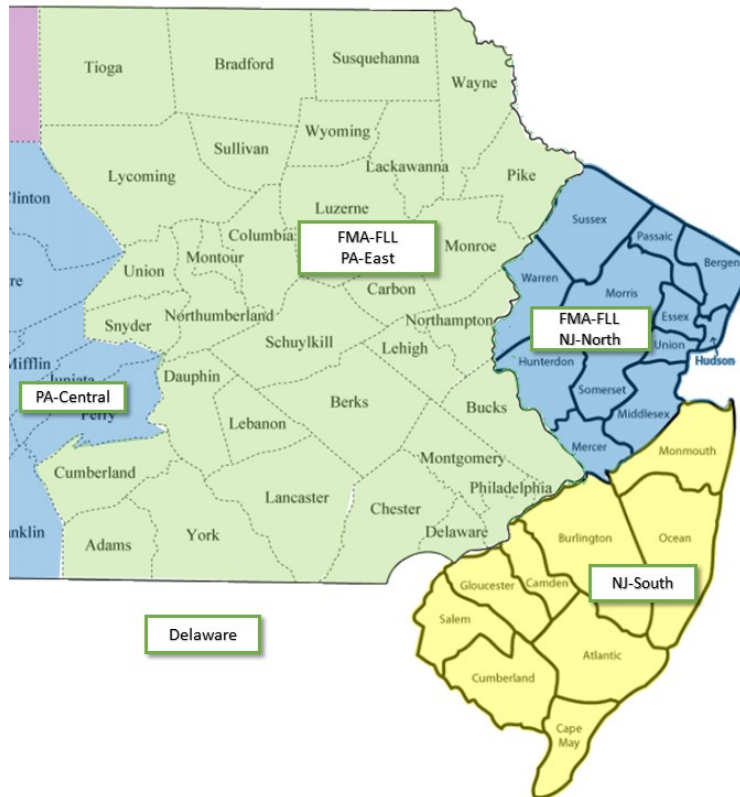
- **FMA-FLL**

- FIRST Lego League program run by FIRST Mid-Atlantic
Frank Larkin – FLL Director
flarkin@midatlanticrobotics.org
Ernie Diccico – NJ-North FLL Director
ediccico@firstpartners.org



Regional Overview

FMA-FLL consists of PA-East and NJ-North



Surrounding Regions Include:

- **FMA-FLL PA-East**
 - Frank Larkin
 - FLL Director
- **FMA-FLL NJ-North**
 - Ernie DiCicco
 - NJ-N FLL Director
- **New Jersey - South**
 - Eric Milou
- **Delaware**
 - Matthew Bobrowsky
- **Pennsylvania - Central**
 - Sarah Cox





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)





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EXPLORE

- **INTRODUCES 6 TO 8 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

EXPLORE

**MASTER
PIECESM**



FIRST[®]
MID-ATLANTIC



EXPLORE

This year's FIRST LEGO League Explore is called MASTERPIECESM.

Welcome to MASTERPIECE!

The children will explore how people share their hobbies and interests in creative and captivating ways. They will learn about different places where people share their talents or go to enjoy a show. Experts from a variety of backgrounds are involved in every step of putting on a show from stage managers to performers.



And it starts here, with you.





EXPLORE

What is a Team?

- **A group of 2-6 students (ages 6-8)**
- **At least two adult coaches**
 - **FIRST Youth Protection Checks Required**
- **No technical experience is required**
- **Provided Explore guides outlining 12 sessions, providing 12-16 hours of guided activities for teams.**
- **Build and program your presentation using LEGOs Spike Essentials Core Set or WeDo 2.0 Set. (teams must purchase)**
- **Attend 1 or 2 Explore Festivals to show off your work.**



Team Participation Rules



[Coaches Required Reading](#)



EXPLORE

Item	Rookie year	Onwards
FIRST Registration (inc. shipping \$18)	\$143	\$143
Season's Explore Set	Included	Included
* LEGO Education Spike Essential Core Set (inc. shipping \$15)	\$334	As needed
Miscellaneous (Flare, Snacks, Boxes)	\$100	\$100
T-shirts	\$60	\$60
FMA Festival Registration	\$50	\$50
Presentation supplies	\$50	\$50
Total (about)	\$737	\$403

* LEGOs WeDo 2.0 Core Set also allowed





EXPLORE

Provided Materials





**FIRST
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Explorer Kit



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2023-24 Guides

**FIRST
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**TEAM MEETING
GUIDE**

**MASTER
PIECE**

FIRST **LEGO education**

**FIRST
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LEAGUE**
EXPLORE

**ENGINEERING
NOTEBOOK**

**MASTER
PIECE**

FIRST **LEGO education**



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EXPLORE

2023-24 Guides



Team Guide:

12 Lessons New coaches can follow to guide the team through the season.

Coaches do not have to use it but it can help guide you discussions.





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EXPLORE

2023-24 Guides

Engineering Notebook:
One for each student!

Encourages students to
put thoughts on paper...

Draw pictures, stick
figures, write, color, or
anything. Whatever
they can do to
remember, design, and
create new ideas.





EXPLORE

FMA-FLL Explore Season

Date	Event
May	Team Registration Opens
August 1 st	Challenge Released (FIRST FLL Website)
Sep. – Dec.	Weekly Coaches Questions Call (FMA-FLL Calendar)
Coach Trainings	Sept (FMA-FLL Calendar, wait for schools to open)
October 9 th	Regional FESTIVAL Registration Opens (FMA FIRST LEGO League Website)
NJ-North PA-East	FESTIVALS November - December FESTIVALS December – January

Note: We hope to have full in-person events run under the most current COVID-19 pandemic guidelines.





EXPLORE

Festival Experience

8:00 am- Team Registration

9:00 am- Opening Ceremony

9:30 am- Reviewing Starts

**Various STEM activities
during review process**

12:30 pm- Recognition Ceremony



The Pit



Reviewers



Core Values



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



Spirit



Flare



High 5's



**These are back,
we hope they stay!**



EXPLORE

Questions?

More Info at...

[FLL Explore Team Info](#)





EXPLORE

Thank You!
Have a great season!

