

2019-20 *FIRST*® LEGO® League Jr. Downingtown Exhibition

December 14, 2019 | CCIU TCHS Brandywine Campus | Downingtown, PA



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Thanks to Our Volunteers!

It takes a small army of volunteer support to make this tournament a special event for teams. We could not provide this opportunity without their support!



The 2019-2020 BOOMTOWN BUILD Challenge will reach more than 169,000 children, ages 6-10, from more than 50 countries and inspire them to create buildings and spaces to improve quality of life in the fictional city of Boomtown. Through 12 guided sessions in their Engineering Notebooks, teams of up to six children will learn about principles of design and basic STEM concepts from Boomtown residents, May and Marco.



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Welcome!

2019 FLL Jr.

Downingtown Exhibition

We would like to thank *everyone* involved in this event. This includes all the FLL Jr. Teams that will be participating and their coaches, mentors, and parents who make this opportunity available to the students. We are especially grateful to the volunteers who donate their time and talents to ensure the event runs smoothly.

FIRST® LEGO® League Jr. teaches a wide variety of skills such as programming, robot design, robot construction, and FIRST's keynote Core Values. We commend the FLL Jr. teams, on your commitment, interest, and passion to be involved with this wonderful program and hope you enjoy the event.

In this packet, you will find directions to the CCIU, the schedule for the day, and other essential information.

Downingtown Area Robotics is pleased to host this event. We are very proud of the students from our FRC and FTC programs (including many FLL alumni!), who you will see working hard throughout the day, with their mentors and many other volunteers. At Downingtown Area Robotics, we introduce, expand, and develop our students' confidence, leadership and communication skills, all while exploring STEM subjects and giving students exposure to engineering practices and tools used every day in the "real world." Please visit us in the Exton Mall or at DARobotics.org if you are interested in learning more about us or the programs we offer.

Thank you for supporting the teams at this qualifying tournament. You will be amazed at the engineering, the research, and the energy these teams demonstrate. FIRST® LEGO® League Jr. inspires them, and they in turn inspire us. Thank you for celebrating with us!

~Clem McKown, Event Director



Directions

**CCIU Intermediate Unit
(TCHS Brandywine Campus)
443 Boot Road, Downingtown, PA**

Please enter via the traffic light on Boot Road, turn to the right and park in the UPPER parking lot. Enter through the Main Entrance Doors after crossing the white bridge.

Directions from the North:

Follow Route 100 South to Business Route 30 (Lincoln Highway) in Exton

Turn right onto Route 30 West. Continue about 2½ miles to Quarry Road

Turn left onto Quarry Road and continue for about 1 mile to Boot Road

Turn right onto Boot Road and continue for approximately ¾ mile to the traffic light at CCIU Drive (on the right after the CCIU building).

Turn right at the traffic light, then turn to the right and park in the UPPER parking lot.

Directions from the South:

Follow Route 100 North towards Route 30 West/Exton

Take the exit for Route 30 West towards Downingtown/Lancaster and continue approximately 2¾ miles to the exit for Route 30 Business/Lancaster Ave

Exit at Route 30 Business/Lancaster Avenue, turn left onto Lancaster Ave (follow signs for Downingtown/US 30 Business W) and continue less than ½ mile to Quarry Road

Turn left onto Quarry Road and continue for about 1 mile to Boot Road

Turn right onto Boot Road and continue for approximately ¾ mile to the traffic light at CCIU Drive (on the right after the CCIU building).

Turn right at the traffic light, then turn to the right and park in the UPPER parking lot.

The Lord's Pantry of Downingtown

No one should suffer from hunger. The Lord's Pantry of Downingtown provides food, information, and basic assistance to those in need with respect and compassion. To assist The Lord's Pantry in its efforts, we ask each team that participates in the FLL Regional Qualifier and the FLL Jr. Exhibition to donate an item from their list of most needed items:

Boxed Goods	Canned Goods	Toiletries
Pasta/Spaghetti (all types)	Veggies (Corn, String Beans, Carrots, Potatoes, Mixed Veggies, Mushrooms, Beets)	Toothpaste and Tooth Brushes
Rice (white/brown or flavored)	Beans (white, red, black, pinto, kidney, chick peas)	Deodorant
Mac & Cheese	Pork & Beans	Shaving Products
Instant Potatoes	Tuna, Ham, Chicken	Razors
Hamburger Helper	Complete Meals (Ravioli, SpaghettiOs, Stew, Manwich, Chili, etc.)	Soap
Stuffing	Tomatoes (Crushed, Whole, Stewed, Diced)	Shampoo
Oatmeal	Tomato Sauce (glass jars or cans)	Feminine Hygiene products
Breakfast Cereal (all types, including children's cereals)	Fruits (Pears, Pineapple, Mandarin Oranges, Peaches, Fruit Cocktail)	Depends
Snack Crackers	Soups (all types)	
Cookies		Other Goods
	Miscellaneous	Peanut Butter (all types)
Baby Products	Reusable Grocery Bags	Jelly (all types)
Diapers	Toilet Paper	Coffee (ground & instant)
Wipes	Paper Towels	Sugar & Flour
Baby Shampoo	Laundry Detergent	Condiments
Formula	Juice (Cranberry, Grape, Apple, Mixed)	Cooking Oil

Items will be collected and dropped off at The Lord's Pantry after the event. Your generosity is greatly appreciated.

[The Lord's Pantry of Downingtown](#) has been in operation for over 50 years and is a non-profit, 501(c)(3) organization which currently serves 700 registered families in the Downingtown area.



Thanks to Our Tournament Sponsors!



Thanks to Our Global Program Sponsors!



About FIRST® LEGO® League Jr.

It's never too early to discover STEM. FIRST LEGO League Jr. is designed to introduce STEM concepts to kids ages 6 to 10 while exciting them through a brand they know and love – LEGO®.

Guided by adult coaches and FIRST® Core Values, students build models using LEGO® Education WeDo 2.0 and create Show Me posters to present what they learned. The program focuses on building interest in science, technology, engineering, and math (STEM) through a real-world challenge – to be solved by research, critical thinking, and imagination.

For more information, visit www.firstinspires.org

About the LEGO Group

The LEGO Group is a privately held, family-owned company with headquarters in Billund, Denmark, and main offices in Enfield, USA, London, UK, Shanghai, China, and Singapore. Founded in 1932 by Ole Kirk Kristiansen, and based on the iconic LEGO® brick, it is one of the world's leading manufacturers of play materials. Guided by the company spirit: "Only the best is good enough", the company is committed to the development of children and aims to inspire and develop the builders of tomorrow through creative play and learning.

For more information, visit www.LEGO.com.



Downingtown
FLL Jr. Exhibition
Schedule

9:00 AM	Doors Open/Volunteer Check-In
9:45 AM	Team Check-In
10:15 AM	Opening Ceremony
10:30 AM – 12:00 PM	Judging
	Teams can get food and observe the FLL event when they are not in a judging session
12:00 PM – 12:45 PM	Judges deliberation (teams can enjoy the concessions and observe the FLL event)
1:00 PM	Awards/Closing Ceremony
	FLL Jr. Teams are welcomed and encouraged to stay for the FLL Robot Game!

Please contact the Event Director, Clem McKown, with questions
 484-645-3689 or clemmckown@comcast.net

In **FIRST LEGO League Jr.**, every team and team member's achievements are celebrated!

Awards May Include:

Amazing Movement Award- For incorporating a unique movement into a team's design.

Gracious Professionalism Award- For exemplifying gracious professionalism during the event. This team was thoughtful, kind, and showed respect for others.

Against All Odds Award- For overcoming incredible odds of an unforeseen nature. This team was able to improvise, adapt, and recover out of sheer determination.

Effort and Learning Award- For a strong effort and a willingness to learn and try new things. This team prepared for success.

Complexity and Decoration Award- For beautiful model construction, with great decorative touches.

Most Explosive Award- For explosive ideas, eye-catching Show-Me poster, and explosive team energy.

Robust Design Award- The team whose understanding and application of construction knowledge allowed them to produce the most solid and sturdiest design.

Construction Innovation Award- For demonstrating an ability to think creatively. This team created excellent designs and built quality components without any instructions or outside assistance.

Team Spirit Award- For a fun team environment, a positive attitude, and constant team support and cheering.

Teamwork Award- For hard work on teamwork. Success as a team came first. Always first to a team solution, this team knows that **Together Everyone Achieves More**.

Inquiring Minds- For interest in science and enjoyment of the building process. Always looking to find a solution, this team kept morale up while creating smart solutions.

About FIRST®

FIRST® (For Inspiration and Recognition of Science and Technology) was founded in 1989 by inventor Dean Kamen to inspire young people's interest and participation in science and technology. Based in Manchester, N.H., the 501(c)(3) not-for-profit public charity inspires young people to be science and technology leaders, by engaging them in exciting Mentor-based programs that build science, technology, math, and engineering (STEM) skills, that inspire innovation, and that foster well-rounded life capabilities including self-confidence, communication, and leadership.

FIRST provides a progression of four global, after-school programs for K-12: the FIRST® Robotics Competition for Grades 9-12 (ages 14 to 18); the FIRST® Tech Challenge for Grades 7-12 (ages 12 to 18); the FIRST® LEGO® League for Grades 4-8 (ages 9 to 16; ages vary by country); and the FIRST® LEGO® League Jr. for Grades K-4 (ages 6 to 10). FIRST also operates a research, development, and training facility called FIRST® Place™ at its headquarters in New Hampshire.

FIRST® Core Values

- **Discovery:** *We explore new skills and ideas.*
- **Innovation:** *We use creativity and persistence to solve problems.*
- **Impact:** *We apply what we learn to improve our world.*
- **Inclusion:** *We respect each other and embrace our differences.*
- **Teamwork:** *We are stronger when we work together.*
- **Fun:** *We enjoy and celebrate what we do!*



Important Event Information

Questions & Help

If you have questions about anything or need assistance, please see anyone wearing a Downingtown Area Robotics t-shirt. They will direct you to someone who can assist you. If you urgently need to contact someone in charge of the event, please go to the registration desk.



Arrivals

It is critical that all teams try to arrive on time (no later than 9:45am) and immediately come to the registration desk.

Gracious Professionalism

Fun is the rule for the day. Please act in accordance with the Core Values of FIRST® LEGO® League. Respect your referees, coaches, and mentors. Always be kind to your fellow teams and team members, and help out as needed.

Food

Concession Stand

The concession stand will be available all day in the cafeteria, and we encourage teams to take advantage of this. Pre-order forms have been emailed to teams to facilitate your lunch orders. They can be handed in at the registration desk with payment. Cash and checks (payable to "Downingtown Area Robotics") will be accepted.

Breakfast Menu

Donuts	50¢
Baked Goods	50¢
Bagels/Cream Cheese	\$1

Lunch/All Day Menu

Water/Soda/Juice	\$1
Coffee/Tea/Hot Chocolate	\$1
Gatorade	\$2
Candy	\$1
Chips	50¢
Water/Soda/Juice	\$1
Pizza (whole pie)	\$15
Hot Dog	\$2
Meatball Sandwich	\$3.50
Samosa	\$1.50
Spring Roll	\$1.50

Outside Food

No outside food is permitted in the competition venues. Host teams and venues are not compensated by FMA for hosting events. The sale of concession food is a fundraiser for the host teams; all proceeds benefit the 2019-2020 Downingtown Area Robotics programs. Please respect this by not bringing outside food to our venues; this includes tailgating, catered meals, meals prepared at home, etc. We understand that a small number of students have specific dietary requirements that would require those students to bring in outside food and request that teams please consult with the Event Coordinator about these cases. We appreciate your support!

FLL Jr. Teams Exhibiting

Team #	Team Name	Organization	Location
7744	Masterminds	The Grayson School	Wayne
14665	Epic Cat-A-Tects	Sarah Starkweather Elementary School	West Chester
16138	Cr8r Bots	Pickering Valley Elementary School	Chester Springs
16152	Crash Astronauts	Pocopson Elementary School	West Chester
16179	Robotic Titans	Downingtown Area Robotics	Exton
16312	Viking Robots	Downingtown Area Robotics	Exton
19263	Pickle Chickens	Swarthmore Rutledge School	Swarthmore
19269	The Hillendale SuperBuilders	Hillendale Elementary School	Chadds Ford
20143	Pocopson Hillendale First Grade Team A	Pocopson Elementary School	West Chester
20369	LEGO City	Downingtown Area Robotics	Exton
20442	DigiMinds	4-H	West Chester
20478	MYC jrFLL 2	Media Youth Center	Media