



Dear Parents and Students,

On August 14<sup>th</sup> we return to campus, and one week later Mount Washington’s new Robotics class will begin in preparation for the First LEGO League Robotics competition. Friends of Mount Washington and STEM Discovery Kids have partnered to bring this robotics team to Mount Washington’s 4<sup>th</sup>, 5<sup>th</sup>, and 6<sup>th</sup> graders.

First LEGO League is an international organization that introduces students to real-world engineering challenges. The theme this year is *Into Orbit*. The competition has three main sections: a **Robot Game**, the **Project**, and the **Core Values**. The competition facilitates problem solving, having fun, and working as a team to accomplish goals.

In the **Robot Game**, a robot designed and constructed by the student team performs specific, space-themed missions as assigned by First LEGO League. Teams earn points when the robot successfully completes each mission.

Student teams prepare the **Project** based on research they perform to solve an engineering problem identified by LEGO First. Each team must present their solution to a panel of judges as part of the competition.

Each team also makes a presentation demonstrating the team’s practice of the **Core Values**. The Core Values include:

- 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!

The competition takes place at a local school on a Saturday in November and winning teams participate in a regional competition in December.

The team will be coached by Melissa Madsen, from STEM Discovery Kids and a teacher at Mount Washington. Melissa Madsen holds a bachelor’s degree in mechanical engineering and worked as an engineer in the aerospace and space industries. She currently teaches the Machines and Mechanisms course as an after school program at Mount Washington Elementary School.

To qualify for the team your student must apply for participation in the Introductory Robotics course, take the course, show engineering ability, and demonstrate a high level of commitment to the core values. Two sessions of the Introductory Robotics course will be offered: one on Tuesdays and the other on Thursdays. Each student may participate in only one of these sessions. The content for the Tuesday session will be the same as the Thursday session. Coaching for the First LEGO League Team will occur on both Tuesdays and Thursdays. For additional information please email [stemdiscoverykids@gmail.com](mailto:stemdiscoverykids@gmail.com) or call Melissa Madsen at 213-797-2341.

Course	Dates	Day of the week	Time	Cost	Max # of students
Introductory Robotics					
Tuesday Class	Aug 21 - Sep 25	Tuesday	2:00-3:30	\$180	8
Thursday Class	Aug 23- Sep 27	Thursday	3:00-4:30	\$180	8
First LEGO League Team	Oct 9- Nov 18	Tues and Thurs	3:00-4:30	\$375	8

Application  
 Robotics Introductory Course at Mount Washington Elementary School  
 By STEM Discovery Kids

Accepting Applications starting Monday May 4, 2018.

To be completed by parent or guardian					
Parent's Name:			Email:		
Cell Phone:			Other Phone:		
Please identify which course (Tuesday or Thursday) you would like for your child:					
Course	Dates	Day of the week	Time	Cost	Max # of students
Introductory Robotics					
Tuesday Class	Aug 21 - Sep 25	Tuesday	2:00-3:30	\$180	8
Thursday Class	Aug 23- Sep 27	Thursday	3:00-4:30	\$180	8
<p>To participate in Introductory Robotics your child must enroll in Beyond the Bell or STAR. A completed Robotics Introductory Course application and payment reserves your child's spot in the class. Applications will be accepted on a first come first served basis. Applications may be submitted by email (send a photograph) or left in the main office. Payment is made by check to Melissa Madsen or paypal to <a href="mailto:stemdiscoverykids@gmail.com">stemdiscoverykids@gmail.com</a>. A scholarship based on financial need is available from Friends of Mount Washington. For questions please email or call Melissa at STEM Discovery Kids at 213-797-2341.</p>					
To be completed by the student					
Name:		Age:		Grade:	
<p>What core value do you believe is most important for the success of a robotics team? Why?          (If you don't remember the core values, review the informational letter or go to <a href="http://www.firstlegoleague.org/about-fll">www.firstlegoleague.org/about-fll</a>)</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>					

Watch the robot game video from FIRST LEGO League (<https://www.first-lego-league.org/en/season/robot-game/missions.html#3>) Choose one mission and describe it below with pictures and words.

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These are some activities you can do to prepare for the team. Circle the ideas that sound fun to you.

Design and build a LEGO space mission for a Mindstorms robot.

Research a topic about traveling in Space (Research for the Project).

Go to ULA's website, discover how much it costs to deliver a satellite to space.

Talk to an engineer in the space industry about space (Research for the Project).

Go to an observatory or a university and talk to an astrophysicist or study the planets.