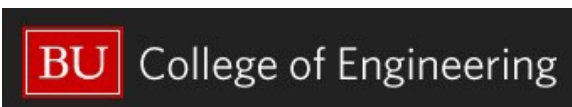




# U-DESIGN SUMMER 2019 ENGINEERING WORKSHOPS

Looking for an opportunity for your child to be a creative STEM problem solver and learn about team work? In these workshops, children will experiment, design, analyze, build and test to solve challenging problems. They will interact with Boston University undergraduate and graduate engineering students to make connections between what they are learning now and how it can apply to future learning!



EXPLORE  
ENGINEERING  
CONCEPTS

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STUDENTS  
ENTERING  
GRADES 7-9

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ELECTRICAL &  
MECHANICAL  
GIZMOS

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ROBO-ALLEY

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FLIGHT SCHOOL 101

SESSION 1  
JULY 8 – 12, 2019

SESSION 2  
JULY 15 – 19, 2019

8:30 AM to 4 PM Monday thru  
Thursday, and from 8:30 AM to  
5:30 PM on Friday

<http://www.bu.edu/eng/u-design/>

<p><b>Robo-Alley</b> (grades 7-9) Session One and Session Two</p> <p>Does your child have an interest in robots? In just one week, they can build and program their own using the Lego Mindstorms robotics kits.</p> <p><b>What they'll do:</b> In two person teams, children will complete design challenges where their robots must respond to their environments such as 3-D obstacle course races, search-and-rescue missions, and a final robot competition.</p> <p><b>What they'll learn:</b> In addition to learning basic circuitry, participants will learn how to program their robots with python. There will be progressive challenges for every level of expertise.</p>	<p><b>Electrical &amp; Mechanical Gizmos</b> (grades 7-9) Session Two ONLY</p> <p>Does your child have an interest in electronics and mechanics? In just one week, they can learn and apply basic principles of electricity, electromagnetism &amp; mechanics.</p> <p><b>What they'll do:</b> In two, three, or four person teams, children will complete design challenges where they will use their toolbox and materials to solve a variety of problems as well as design their own invention.</p> <p><b>What they'll learn:</b> In addition to learning basic electrical and electromagnetism, participants will learn how to program their robots with python. There will be progressive challenges for every level of expertise.</p>	<p><b>Flight School 101</b> (grades 7-9) Session One ONLY</p> <p>Does your child have an interest in aeronautics? In just one week, they can learn about the basic flight principles of thrust, lift, and drag.</p> <p><b>What they'll do:</b> In two person teams, children will complete design challenges where their gliders and rockets are put to the test and compete for records such as longest airtime, greatest distance traveled, or highest altitude reached.</p> <p><b>What they'll learn:</b> In addition to learning basic principles of flight, participants will learn how bird flight influenced how airplanes fly, that not all birds fly the same way, and how balloons are like boats.</p>
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**Tuition: \$425 for the first session and \$400 for any additional session.**

**(Parents wishing to enroll multiple children in U-Design will also receive this discount).**

**A non-refundable deposit of \$100 for each workshop is expected at the time of online registration for each student.**

**Payments can be made only via credit card using DISC, MC, or VISA.**

**Students are required to bring a lunch each day.** Each session of the program concludes on Friday afternoon with a family pizza party and presentation from 4:00 PM to 5:30 PM. The pizza party and a U-Design t-shirt are included in the tuition cost. Workshops also include materials for students to take home.

There is a limit of 20 students per workshop.

Scholarships may be available for students who qualify for a free or reduced school lunch.

For more information, please contact us by phone at 617-353-6919,  
or by email at [udesign@bu.edu](mailto:udesign@bu.edu).

The deadline for registration, receipt of all completed health forms, and full tuition payment is  
**Friday, June 7, 2019.**