LabSpace Winter Schedule 2019

Computer Club

We'll use the Scratch programming language and learn basic computer concepts while we create some fun projects. The Scratch programming language was designed at MIT to provide an intuitive introduction to programming for students ages 8-16. We'll learn about concepts like loops, wait statements, and events. Past students have enjoyed being able to share their projects with others. We will be using an Art Theme for this session of Computer Club. .
8 sessions, Tuition: $60. Ages: 9-13.

Thur 6:30-7:30 2/7-4/4 (no class 3/28)

Intro to Programming

Scratch is an introductory programing language designed for ages 8+. We're pairing Scratch with Microbit, a small microprocessor that will allow us to use it's sensors and buttons in our programs. At the end of the 4 classes, the Microbit will be yours to take home and Scratch is a free program you can use at home, so you'll be able to continue the fun at home. Tuition: $65. Register at LabSpaceRobotics.com. Registration deadline: Jan 3, 2019.

Thur 4:00-4:50 1/10-1/31

LabSpace is excited to have Rick Rother back this Creating Comics Workshop for ages 9+. Students will be given firsthand knowledge and practical experience in creating and developing their own world and visual language for all to enjoy! Students of all experience levels are welcome. Sat, Jan 12 from 8:30-10:30. Tuition: $20. Registration deadline: Jan 7th.
   Animation-Feb 9 830-10:30
   Stop Mo Level 1-Mar 9 8:30-10:30
   Stop Mo Level 2-Ap 27 8:30-10:30

Game Design

Build and design your own video games using The Games Factory 2 game engine. We'll focus on good programming practices, user interface design, testing and refining our games. The class will work on constructive criticism skills-how to make productive suggestions for game improvement. Tuition: $120 for 8 one-hour sessions. We encourage students to get a copy of The Games Factory 2. It is available on Amazon for about $25. We get lots of programming done in class, but game design takes time and having access to the program at home will allow students to practice what they've learned. Level 1 is for beginners, Platform Games (4 sessions $65) is for those who've completed level 1.

Level 1-Fri 6:00-7:00 2/8-4/4 (no class 3/29)
Platform Games- Thur 6:00-7:00 1/9-30

Mad Scientists

Our new science program for grades K-2. We'll be knocking down targets, making things fly and building our own toys as we explore magnets, static electricity, exciting chemical reactions, elastic potential energy and more. Families are encouraged to stay and work together in class. This session will cover different projects than November's classes.

Wed 4:30-5:15 1/9-1/30
Fri 5:30-6:15   1/11-2/1

Music and Making- Pre-K

Join us Wednesday mornings Jan 9-Feb 27 for some fun maker and play experiences and then a short sing along. We'll rotate between playdough, painting, science experiences, and art projects. Projects will be gear to ages 3+ but may be enjoyed by younger and older children. Adults should stay and participate in play with their child and also get to have some "grown-up" conversations. Tuition is $4 per maker with a max of $8 per family. Please register at LabSpaceRobotics.com to let us know you're coming.

LabSpace Family Fieldtrip

Join us Friday, Jan 25th from 6:00-8:00 for a fun family evening filled with science activities. We'll order a large pizza for each family. We'll plan on eating first and then diving into our activities. Bring your own drinks or snacks and come learn something new! Tuition: $30 per family.

Robot Lab Grades 2-4

Bring your Lego creations to life! We'll learn about motors, gears, pulleys, and sensors as we build and program a new creation in each class. Each week, we'll learn more about programming our creations using a special programming language created just for these robotics sets. Tuition: $100 for eight 60-minute classes.

Level 1 Thur 5:10-6:10 2/7-4/4 (no class 3/28)
Level 2 (our old level 3 and 4 new classes)
       Thur 4:00-5:00 2/7-4/4 (no class 3/28)

Robot Lab Grades 3+

No experience required -An intro to building and programming robots using Lego Mindstorms.Students will program their robots to complete a variety of fun challenges. In our beginning classes, each student works on their own robot and computer, we don't share.That way we can be sure that everyone understands all the concepts and we can help as needed. Tuition: $100 for eight 60-minute classes.

Students who have previous robotics experience are welcome in the advancing classes. We focus on specific challenge in these classes, but encourage the students to be more independent in how they arrive at a solution.

Level 1 - Thur 5:15-6:15 2/7-4/4 (no class 3/28)
Advancing Thur 4:00-5:00 2/7-4/4 (no class 3/28)

Cardboard Engineering

Students put their critical thinking and logic skills into action with activities that explore cardboard as a building material. What different ways can pieces connect? How could a hinge or spring be made? Time to make mistakes and take chances! This class will include designing making their own automaton. Tuition: $40 Ages 8+. Registration Deadline: Jan. 1, 2018. Register at LabSpaceRobotics.com or call (573) 645-0800.
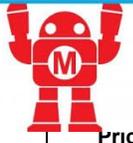Tuesdays 5:45-6:45 1/8 -1/29

Circuits, Circuits, Circuits

Students will start with very simple circuits and add to their knowledge base in each class. They will create several projects to take home. Tuition: $40 Ages 8+. Parents are encouraged to stay and work with their child. Registration Deadline: Jan. 15, 2018.
Tuesdays 5:45-6:45 2/5 -2/26

LabSpace Maker Camps Winter 2019

Maker Camp

	Description	Ages	Date(s)	Price
Program a Robot Workshop	Join us as we spend 2 hours building a robot and then using it to complete some fun challenges. No building or programming experience necessary- we'll have instructions and plenty or help along the way. $20 per family if you use the same robot set. Add $5 per robot set per family. We'll be using the Lego Mindstorms, so you don't get to take the robots home, but you'll learn a lot.	Ages8+ 6-8 with an adult helper	Jan 1 2:00-4:00	$20per family
WiggleBot	Build a robot that scribbles as it wiggles! You'll learn to wire a circuit with a switch and then we'll attach some markers so that it can create some fun art and it spins.	7+	Sat, Jan 5 10:00	$8 per maker
Bow and Arrow	Make a bow from craft sticks, a rubber band and hot glue. Add an arrow from a straw and you'll be ready to practice your archery. Younger welcome with a hands-on helper.	7+	Sat, Jan 5th 11:30	$8 per maker
Permanent Marker Tie Dye	Join us to decorate dish towels with permanent markers and then see what happens when you add a few drops of alcohol to your design.You'll get to take your towel home with you. Make sure to pop it into the dryer for 15 minutes to set your design.	5+	10:00-10:45	$6 per maker
Rubber Band Wind-up Racer	Make a rubber band powered racer to take home. Use a paper tube, wooden wheels, rubber bands and paper clips to make a fun wind-up racer. Experiment with the power of elastic potential energy. What happens when you add another rubber band? Ages 5-7 should have a hands-on, adult helper.	5+	Sat, Feb 23 10:00-11:00	Tuition: $5 per maker
Wocket In My Pocket	Celebrate Dr Seuss' birthday with us-we'll read Wocket in My Pocket and then make our own Wockets to take home	5+	Sat, Mar 2 10:00	Tuition: $5 per maker max of $10 per family
Balloon Car	Design a balloon powered car from recycled materials. Use the engineering design process as you build, test and improve your car.	8+	Sat, March 23 10:00	$5 per maker
Clip Mobile	Using recycled materials, create a "clip mobile" to carry a box of paper clips down a ramp. We'll explore friction as we try our clip mobile on different surfaces.	8+	Sat, March 23 11:30	$5 per maker
Storybook Maker Camp	In this 60-90 minute cross-curriculum class we'll read a picture book and make a related project. Classes will focus on concepts such as engineering, science, problem solving, critical thinking, etc. Additional reading lists will be provided so you can continue exploring at home. The first class will feature the beautifully illustrated book Ada's Violin by Susan Hood. It tells the true story of the Recycled Orchestra of Paraguay, a children's orchestra that made their own instruments out of discarded items. Then we'll use engineering and problem solving skills to make our own recycled instruments. LabSpace is excited to welcome back Breanne Gibson as the teacher for this class. Miss Breanne has just complete her Master's degree in Library Science and is excited to put all she has learned to practice in this wonderful series of classes held on the first Monday from 10:30-12:00 Jan-April. Registration required-register at LabSpaceRobotics.com or call (573) 645-0800.	Pre-K- Grade 2	1/7, 2/4, 3/4, 4/1 10:30-12:00	$5, max of $10 per family
Young Maker Morning	We'll have several "mini" projects set out for you to choose from and you can make as many as you like. This is family event-all are welcome to stay and build. $5 builder. Makers younger than 8 must have a hands-on adult helper.	Ages 5+ with an adult	Jan 12 Feb 9 Mar 9 10:00-12:00	$5

Register at LabSpaceRobotics.com or (573)645-0800. Registering will help us know how many materials to prepare and how many teachers to staff. Classes that don't meet minimum enrollment will be cancelled, so let us know you're coming.

We're excited to provide these low-cost making opportunities! Thank you to Capital Mall for making them possible. More events will be added, please check out website for the most up to date schedule.

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