e3Robotics
Excite Educate Encourage

| 6-8 | 9-11 | 11-14 | 13+ |

STEM CENTRAL
Winter/Spring 2018

WWW.E3ROBOTICS.US ☾336-493-0403

e3 Robotics
Excite Educate Encourage

Dear Family and Friends,

This winter and spring we are continuing to push the boundaries of science, technology, engineering and math with our **STEM Central Winter/Spring Workshops**. Our non profit mission is to **EXCITE, EDUCATE and ENCOURAGE** your child to become the innovators of tomorrow.

This year we have added additional information to help you determine if a workshop is right for your child. e3 Robotics will be hosting our program this Winter/Spring at our new location at 1715 NC 68, Oak Ridge NC 27310 in the Family Center Building.

This year we will be introducing our Elevate Leadership program for for older students ages 12-17. We also will be offering a Chess Competitive Team, as well as underwater robotics. Our goal is to have fun while learning. Finally we have created levels with workshops so that students who are interested in learning more can delve deeper once they have completed an introductory class.
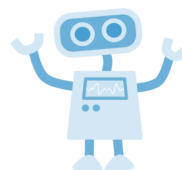
Refer a friend to our program and receive $10.00 off your next registration and they will receive $10.00 off as well.

For more information about registration please visit us at www.e3robotics.us. Please feel free to contact me at 336-493-0403.
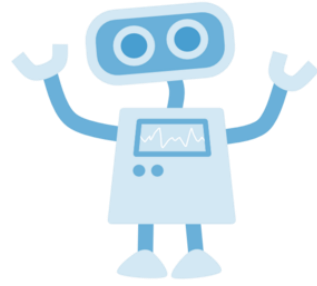
We look forward to seeing you and your family this Winter/Spring!

Maria

501 (c) 3 Non-Profit

Elevate Leadership

Elevate leadership development program integrates sophisticated content, youth development strategies, experiential learning, and opportunities to empower tomorrow's leaders. 21st Century Leadership skills empower young people with the inspiration, tools and resources to make a difference in their school or community—making a tangible impact on issues they're passionate about.

Our 21st Century Leadership program is designed to:

- Develop awareness of leadership styles and how to leverage strengths
- Explore decisive conflict resolution tactics
- Learn effective communication strategies
- Understand the power of social media and digital citizenship
- Amplify impact by learning how to mobilize peers to achieve common goals

Character is how you treat those who can do nothing for you.

All children have the potential to become leaders.

Ambassador (12-17):
First time participants who have never attended a previous Elevate Youth Leadership Program.

Alumni (13-17):
Returning participants who have 1 Year of Elevate Leadership training and have the desire to further their leadership skills in addition to helping guide our first-time Ambassador participants. They have been recommended or nominated by their Team leader during the previous year.

Youth Leader (16-18):
The highest level of applicants, Youth Leaders have participated for 2 or more years with our Elevate Leadership Training program as an Alumni. They have been recommended or nominated to the Youth Leader role by their Team Leader during the previous year.

Date: January 9 – December 15, 2018
Time: Tuesday or Thursday 6:00 – 8:00 PM
Location: 1715 NC 68 Oak Ridge
Room: 202
Cost: $300.00 per year

Parent Information Meeting
Date: November 18, 2017
Time: 10:00-11:30 am
Location 1715 NC 68, Oak Ridge

Stem Central Winter/Spring 2018

⚙ Ages 6-8

Day	Time	Description	Dates	Cost
Sat.	10:00 AM-12:00 PM	Winter Make and Create	Dec. 16	$25.00
Sat.	10:00 AM-12:00 PM	New Year Blast Off	Dec. 30	$25.00
Tues.	1:00—3:00 PM	Classical Conversation Program	Jan. 9—Mar. 27	$150.00
Tues.	4:00—5:30 PM	Jr. Space Academy	Jan. 9—Jan. 30	$60.00
Thurs.	9:00 AM—10:30 AM	Electric Circus	Jan. 4 - Jan. 25	$60.00
Sat.	9:00 —10:30 AM	Crazy Contraptions	Jan. 6—Jan. 27	$60.00
Tues.	4:00—5:30 PM	Robot Dig	Feb. 6—Feb. 27	$60.00
Sat.	9:00—10:30 AM	Oooey—Gooey	Feb. 3—Feb. 24	$60.00
Tues.	4:00—5:30 PM	Master Builder	March 6—March	$60.00
Thurs.	9:00 AM—10:30 AM	Underwater Robotics Team	March 8—April 26	$120.00
Sat.	9:00 AM—10:30 AM	Underwater Robotics Team	March 3—April 21	$120.00
Tues.	4:00—5:30 PM	Electric Circus	April 3—April 24	$60.00
Tues.	4:00—5:30 PM	Crazy Contraptions	May 1– May 22	$60.00
Sat.	9:00—10:30 AM	Master Builder	May 5—May 26	$60.00

⚙ Ages 9-11

Day	Time	Description	Dates	Cost
Sat.	10:00 AM-12:00 PM	Winter Make and Create	Dec. 16	$25.00
Sat.	10:00 AM-12:00 PM	New Year Blast Off	Dec. 30	$25.00
Tue.	1:00—3:00 PM	Classical Conversation Program	Jan. 9– Mar. 27	$150.00
Thurs.	11:00 AM—12:30 PM	Galaxy Defender	Jan. 9—Feb. 27	$120.00
Thurs.	1:00—4:00 PM	Underwater Robotics Team	Jan. 9—April 24	$250.00
Thurs.	4:30—6:00 PM	VEX IQ - Hexball	Jan. 9—Feb. 27	$120.00
Sat.	11:00 AM—12:30 PM	Space Academy—Rockets	Jan. 9— Jan. 30	$60.00
Sat.	11:00 AM– 12:30 PM	Competitive Chess Club	Jan. 6— May 12	$150.00
Sat.	9:00 AM—12:00 PM	Underwater Robotics Team	Jan. 6 –April 24	$250.00
Thurs.	11:00 AM—12:30 PM	Space Academy—Rockets	March 6—April 24	$120.00
Sat.	11:00 AM—12:30 PM	VEX IQ– Hexball	Feb.—March	$120.00
Thurs.	4:00—5:30 PM	Explode the Code—Coding	March 6—April 24	$120.00
Sat.	11:00—12:30	Explode the Code—Coding	April—May	$120.00
Thurs.	11:00 AM–12:30 PM	Roller Coaster Physics	May 1—22	$60.00

Stem Central Winter/Spring 2018

Ages 11-13

Day	Time	Description	Dates	Cost
Sat.	10:00 AM-12:00	Winter Make and Create	Dec. 16	$25.00
Sat.	10:00 AM-12:00	New Year Blast Off	Dec. 30	$25.00
Tues.	6:00—8:00 Pm	Elevate Leadership Program	Jan. 9—Dec. 11	$300.00
Thurs.	6:00—8:00 PM	Elevate Leadership Program	Jan. 11—Dec. 13	$300.00
Wed.	1:00—2:30 PM	Explode the Code—Coding	Jan. 10— Feb. 28	$120.00
Wed.	1:00—2:30 PM	Intro to Arduino	Mar. 7—April 25	$120.00
Wed.	1:00—3:00 PM	Underwater Robotics Team	Jan. 9—April 25	$250.00
Sat.	2:00—5:00 PM	Underwater Robotics Team	Jan. 6—April 28	$250.00
Wed.	6:00—7:30 PM	Explode the Code—	Jan. - Feb. 27	$120.00
Wed.	6:00—7:30 PM	Rocket Academy	Mar. - April	$120.00
Sat.	11:30 AM—1:30	Competitive Chess Team	Jan. 6— May 12	$150.00

Ages 13-17

Day	Time	Description	Dates	Cost
Tues.	6:00—8:00 PM	Elevate Leadership Program	Jan. 9—Dec. 11	$300.00
Thurs.	6:00—8:00 PM	Elevate Leadership Program	Jan. 11—Dec. 13	$300.00
Sat.	2:00—5:00 PM	High School Robotics Team	August—July	$300.00
Sat.	11:30 AM—1:30	Competitive Chess Team	Jan. 6—May 12	$150.00

Refer us to your friend and get $15.00 off on your next purchase and your friend gets $15.00 off too.

To register your friend go to www.e3robotics.us
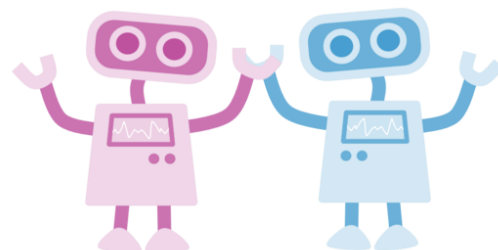
Frequently Asked Summer Camp Questions

Why are there lab fees for only certain classes?
When a lab fee is listed it is the fee for the materials that we are purchasing for students to take home. These types of materials we are hoping your child will continue to use at home or attend an advanced class so that they can learn even more.

If my child is 10 or 13, 14 how do I choose the level of class for him/her?
The main difference between levels is degree of intensity of learning. The pace of instruction increases as students increase in age. So if you want them to try a class to see if they will like it place them in the workshop where they will be the oldest. If they love it and want to do more they can then move to a Level 2 workshop or Move to the next age group.

How Do I Register for a Workshop?
Registrations may be submitted online, by mail or in person. Online registrations will take priority. Mailed and dropped off registration will be processed in the order they are received.

Registration Opens November. 1, 2017

48 hour advanced registration is required for ALL camps. There are a limited number of spaces (12 max). Register early to avoid disappointment. You may register in 3 ways:

1. **Online:**   Register at www.e3robotics.us. Online registrations will take priority over mailed or dropped off registrations.

2. In Person:
Register in person Monday—Friday, 10:00 AM—5:00 PM, at our office located at 1715 NC 68 Oak Ridge, NC 27310. Cash, check or credit card accepted.

3. By Mail: Mail payment to e3 Robotics, PO Box 163 Oak Ridge, NC 27310

Cancellation Policy
e3 Robotics makes every effort to not make changes to our schedule. However we reserve the right to cancel any workshop/team not meeting minimum enrollment, combine classes, and substitute faculty when necessary. Workshop/Team cancellations are announced 5 business days prior to start date.

Refunds & Credits
Fees are refunded 100% if e3 Robotics cancels a camp due to insufficient enrollment. Registrant cancellations are 100% transferable into another workshop/credit or 50% refundable. All workshop cancellations must be made no later than 2 weeks prior to your registered workshop start date. NO REFUNDS or CREDIT VOUCHERS will be issued after this final cancellation period.

Pick Up and Drop Off Location
Pick up and drop off will happen at your child's room unless they are 12 and older and have parental permission. Please send a note that states they are permitted to sign themselves in and out of the room

Workshop/Team Guidelines

• Each student should bring a snack for each session. Snacks are not provided by e3 Robotics.

• To ensure a great experience for every child, e3 Robotics reserves the right to remove disruptive students. If a student is asked to leave, all fees will be forfeited for the entire workshop/team.

• Cell phones, card games and hand-held video games systems are prohibited at workshops or team meetings. These items distract from the learning environment. If such items are found during class time, they will be held by the instructor and returned to the parent at the end of the day.

For More information regarding e3 Robotics workshops please see the *Parent Information Guide or FAQ's*
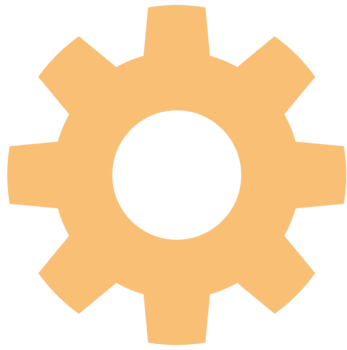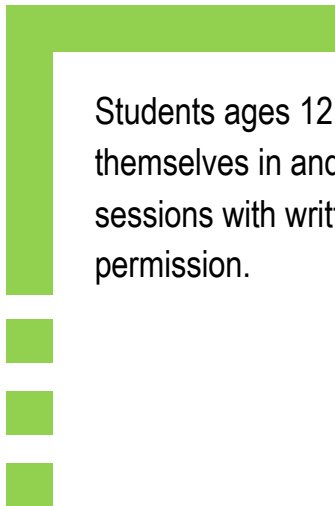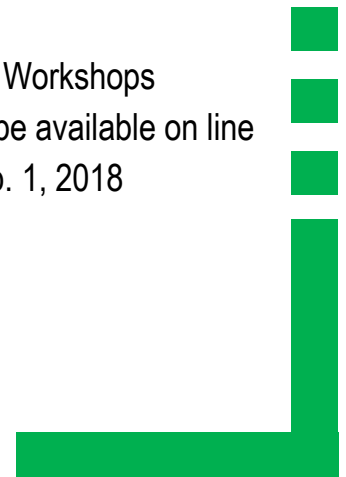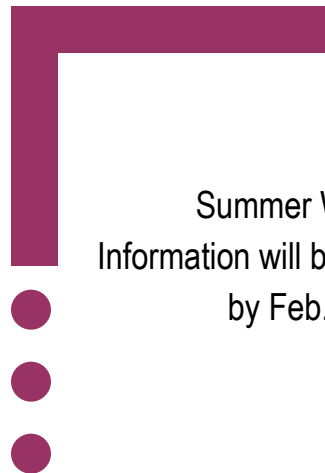
Please sign your child in

And out of workshop sessions.
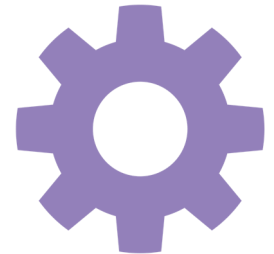
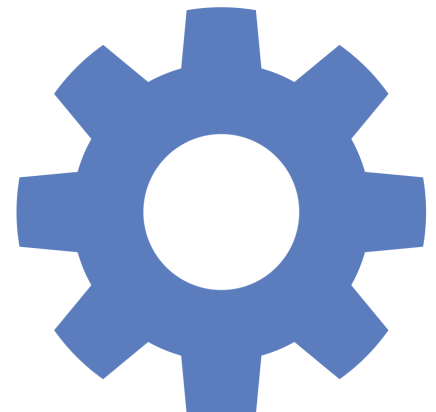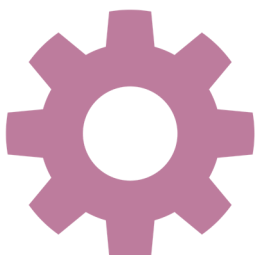Students ages 12 and up may sign themselves in and out of workshop sessions with written parent permission.

Summer Workshops
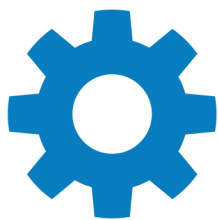Information will be available on line
by Feb. 1, 2018

Snack

Short snack breaks are taken in workshop sessions.

Snacks are not provided.

STEM CENTRAL

December

Winter Make and Create—Saturday Dec. 16, 2017; 10:00 AM—12:00 PM

Where you'll power LEDs w/lemons and paint the sky w/light. Do not dare enter w/out your creativity helmet, hand-crafted in your cardboard Maker lab.

Skills Learned:

Make some of our favorite projects, think way outside the box, and discover the science behind fruit-powered circuits, colorful light play, and creative cardboard construction.

Level
Introductory; no experience required
Mechanical, Electrical Engineering
Hands on activities and experiments
Time: Saturday 10 AM—12 PM
Cost: $25.00

New Year Blast Off! - Saturday Dec. 30, 2017; 10:00 AM—12:00 PM

Light it up

Make many different paper-based projects that light-up in cool and surprising ways, as you learn circuitry basics through crafting with LEDs, copper tape, and coin cell batteries.

YOU'LL GET TO:
- Build a circuit on paper using conductive tape, LEDs, and coin cell batteries.
- Design a light-up project, such as a greeting card.

Level
Introductory; no experience required
Electrical & Mechanical Engineering
Hands on Activities and experiments
Robotics
Hands on Activities and experiments
Time: Saturday 10 AM—12 PM
Cost: $25.00

2018

CC Terrific Tuesday's—Jan. 9—Mar. 27; 1:00—3:00 PM

A program designed for families who attend Classical Conversations. Students will learn through hands on activities a variety of introductory engineering concepts as well as participate in the underwater robotics league.

Level
Introductory no experience required
Programming
Underwater Robotics
Time: Tuesday, 1—3 PM
Jan. 9—Mar. 27
Cost: $150.00

Jr. Space Academy— Tuesday, Jan. 9 - Jan. 30; 4:00—5:30 PM

Calling all future Nasa Engineers. In this exciting introduction students will have an opportunity to be introduced to a broad spectrum of science and technology concepts. Academic modules include Unmanned Systems, Lift in Space, Rocket Science, Satelites and their orbits, Fundamentals of Flight, and Planetary Missions—Both human and robotics. Children will learn to: work in a team setting to solve problems systematically and creatively. Expand their knowledge by understanding first-hand what really goes on behind the scenes in rocket science.

Level
Introductory no experience required
Space, Physics, Technology, Flight
Time: Jan. 9—Jan. 30; 4:00—5:30 PM
Cost: $60.00

Electric Circus—Thursday, Jan. 9 - Jan. 30; 9:00—10:30 AM

Ringmasters in training will be mesmerized and electrified by all they can crete with a little bit of power , wires and unusual objects. Explore electricity and circuits through hands –on activities.
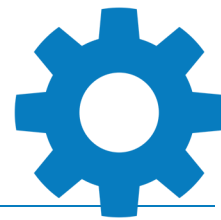
Level
Introductory no experience required
Electrical Engineering, Circuits, Electronics
Time: Thurs. Jan. 9 –30; 9—10:30 AM
Cost: $60.00

Ages 6-8

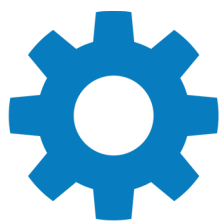|	
Crazy Contraptions—Saturday, January 6—January 27; 9:00—10:30 AM Learn how simple machines can be used to create wacky contraptions that set off chain reactions. Students will explore concepts made popular by Rube Goldberg and his machines to explore simple machines, mechanisms, and chain reactions.	**Level** Introductory no programming experience required **Mechanical Engineering Concepts** **Time:** Saturday, 9:00—10:30 AM **Cost:** $60.00
Robot Dig—Tuesday, Feb. 6—Feb. 27; 4:00—5:30 PM Roboticists, the World Archaeological Society (WAS) needs you to build a robot to deploy Dig Bots at Archaeological sites in regions of the former Roman Empire. Roboticists will be using LEGO Simple & Motorized Mechanisms to build robots and complete challenges.	**Level** Introductory no programming experience required **Mechanical Engineering Concepts** **Time**: Tuesday **Cost**: $60.00
Oooey Gooey - Saturday, Feb. 3—Feb. 24; 9:00—10:30 Dress to make a mess! Students will be up to their elbows in slimy, silly, gooey hands on activities as they learn about chemistry and chemical compounds. .	**Level** Introductory no previous experience required **Chemistry and chemical compounds** **Time:** Saturday, 9:00—10:30 AM **Cost: $60.00**
Master Builder—Tuesday, March 6—March 27; 4:00—5:30 PM Busy Builders will be taught about the physics of building sturdy structures such as buildings, bridges and whatever they can imagine. Students will learn how to use computer aided deigning software and how to build from their design.	**Level** Introductory no previous experience required **Civil Engineering, Technology** **Time**: Tuesday, 4:00—5:30 PM **Cost**: $60.00
Jr. Underwater Robotics Team—Thursday, March 8—April 26; 9:00—10:30 AM Students work together to design, build, program, test and redesign underwater robots, made of LEGO and other components. Students engage in a series of design challenges or "missions" that gradually increases in complexity and ultimately leads to a fully functional underwater robot fully capable of completing mission challenges at their awards celebration.	**Level** Introductory no experience required. **Robotics, Technology, Oceanography** **Time**: Thursday, 9:00—10:30 AM **Cost: $120.00**
Jr. Underwater Robotics Team—Saturday, March 3—April 21; 9:00—10:30 AM Students work together to design, build, program, test and redesign underwater robots, made of LEGO and other components. Students engage in a series of design challenges or "missions" that gradually increases in complexity and ultimately leads to a fully functional underwater robot fully capable of completing mission challenges at their awards celebration.	**Level** Introductory no experience required. **Robotics, Technology, Oceanography** **Time**: Saturday, 9:00—10:30 **Cost: $120.00**

Ages 6-8

STEM CENTRAL

Electric Circus—Tuesday, April 3—April 24; 4:00—5:30 PM

Ringmasters in training will be mesmerized and electrified by all they can crete with a little bit of power , wires and unusual objects. Explore electricity and circuits through hands –on activities.

Level
Introductory no experience required
Electrical Engineering, Circuits, Electronics
Time: Tuesday, 4:00—5:30 PM
Cost: $60.00

Crazy Contraptions—Tuesday, May 1—May 22; 4:00—5:30 PM

Learn how simple machines can be used to create wacky contraptions that set off chain reactions. Students will explore concepts made popular by Rube Goldberg and his machines to explore simple machines, mechanisms, and chain reactions.

Level
Introductory no programming experience required
Mechanical Engineering Concepts
Time: Tuesday, 4:00—5:30 PM
Cost: $60.00

Master Builder—Saturday, May 5—May 26; 9:00 –10:30

Busy Builders will be taught about the physics of building sturdy structures such as buildings, bridges and whatever they can imagine. Students will learn how to use computer aided deigning software and how to build from their design.
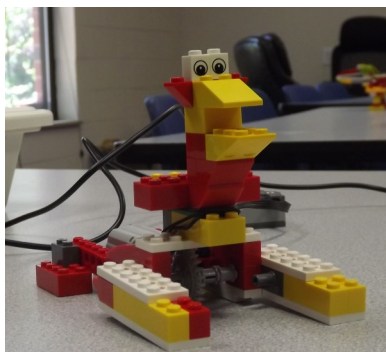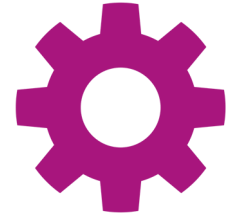
Level
Introductory no previous experience required
Civil Engineering, Technology
Time: Saturday, 9:00—10:30 AM
Cost: $60.00

Ages 9-11

December

Winter Make and Create—Saturday Dec. 16, 2017; 10:00 AM—12:00 PM

Where you'll power LEDs w/lemons and paint the sky w/light. Do not dare enter w/out your creativity helmet, hand-crafted in your cardboard Maker lab.

Skills Learned:

Make some of our favorite projects, think way outside the box, and discover the science behind fruit-powered circuits, colorful light play, and creative cardboard construction.

Level
Introductory; no experience required
Mechanical, Electrical Engineering
Hands on activities and experiments
Time: Saturday 10 AM—12 PM
Cost: $25.00

New Year Blast Off!- Saturday Dec. 30, 2017; 10:00 AM—12:00 PM

Light it up

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YOU'LL GET TO:
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- Design a light-up project, such as a greeting card.

Level
Introductory; no experience required
Electrical & Mechanical Engineering
Hands on Activities and experiments
Robotics
Hands on Activities and experiments
Time: Saturday 10 AM—12 PM
Cost: $25.00

2018

Classical Conversation Program—Tuesday, Jan. 9—Mar. 27; 1:00—3:00 PM

A program designed for families who attend Classical Conversations. Students will learn through hands on activities a variety of introductory engineering concepts as well as participate in the underwater robotics league.

Level
Introductory no experience required
Programming
Underwater Robotics
Time: Tuesday, 1—3 PM
Jan. 9—Mar. 27
Cost: $150.00

Galaxy Defender—Thursday, Jan. 4— Feb. 24; 11:00 AM—12:30 PM

Defenders will go through trials, obstacles, and traps using the EV3 Intelligent Brick from LEGO. Students are encouraged to brainstorm in order to find creative solutions to problems and then develop the through a process of selecting, building, testing, and evaluating.

Level
Introductory; no experience required
Electrical & Mechanical Engineering
Robotics,
Time: Thursday, 11:00 AM—12:30 PM
Cost: $120.00

Underwater Robotics Team—Thursday, Jan. 4—April 26; 1:00—4:00 PM

Students work together to design, build, program, test and redesign underwater robots. Students engage in a series of design challenges or "missions" that gradually increases in complexity and ultimately leads to a fully functional underwater robot fully capable of completing mission challenges at the Regional Tournament.
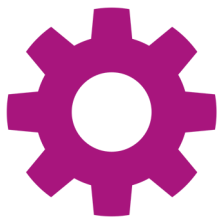
Level Scout
Introductory; no experience required
Electrical & Mechanical Engineering
Robotics,
Time: Thursday, 1—4:00 PM
Cost: $250.00

VEX IQ– Hexball—Thursday, Jan. 4— Feb. 27; 4:30—6:00 PM

Are you ready for a little something different? Then let's play Hexball. The object of the game is to attain the highest score by Scoring Hexballs in their colored Scoring Zone and Goals, and by Parking and Balancing Robots on the Bridge. You begin with building a VEX IQ Robot with your team mate, then it's onto the programming. Students will be able to make their robot move autonomously as well as using a remote control.

Level
Introductory no experience required
Robotics, Programming, Teambuilding
Time: Thursday, 4:30—6:00 PM
Cost: $120.00

Space Academy—Saturday, Jan. 6—Jan. 27; 11:00 AM—12:30 PM

In this exciting workshop students will have an opportunity to be introduced to a broad spectrum of science and technology concepts. Academic modules include Unmanned Systems, Lift in Space, Rocket Science, Satellites and their orbits, Fundamentals of Flight, and Planetary Missions—Both human and robotics. Children will learn to: work in a team setting to solve problems systematically and creatively. Expand their knowledge by understanding first-hand what really goes on behind the scenes in rocket science.

Level
Introductory no experience required
Space, Physics, Technology, Flight
Time: Saturday, 11:00 AM—12:30 PM
Cost: $60.00

Competitive Chess Team—Saturday, Jan. 6—May 12; 11:30—1:30

Chess is a valuable educational tool that helps teach important lessons including problem-solving, critical thinking, sportsmanship, patience and goal setting -- plus, it is fun! Introduce chess to students in a way that strategically introduces the basics first, so that students quickly learn to play a legal game of chess; Facilitate progressive growth through the sequential introduction of increasingly complex skills; Provide students, and parents, course goals and expectations; Provide framework to measure student results Levels are designed so that a typical third grade student could complete a Level within 10-15, one-hour classes.

Level
Self Pacing
Strategy, Critical Thinking, Sportsmanship, Problem-Solving
Time: Saturday, 11:30—1:30
Cost:: $150.00

Underwater Robotics Team— Saturday, Jan. 6—April 21; 9:00 AM—12:00 PM

Students work together to design, build, program, test and redesign underwater robots. Students engage in a series of design challenges or "missions" that gradually increases in complexity and ultimately leads to a fully functional underwater robot fully capable of completing mission challenges at the Regional Tournament.

Level Scout
Introductory
Electrical & Mechanical Engineering Robotics,
**Time**: Saturday 9:00 AM—12:00 PM
Cost: $250.00

Space Academy—Thursday, March 8—April 26; 11:00 AM—12:30 PM

In this exciting workshop students will have an opportunity to be introduced to a broad spectrum of science and technology concepts. Academic modules include Unmanned Systems, Lift in Space, Rocket Science, Satellites and their orbits, Fundamentals of Flight, and Planetary Missions—Both human and robotics. Children will learn to: work in a team setting to solve problems systematically and creatively. Expand their knowledge by understanding first-hand what really goes on behind the scenes in rocket science.

Level
Introductory no experience required
Space, Physics, Technology, Flight
Time: Thursday, 11:00—12:30
Cost: $120.00

Ages 9-11
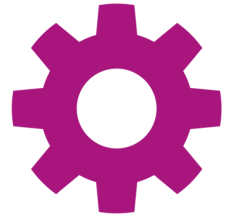
VEX IQ—Hexball—Saturday, Feb. 3—March 31; 11:00 AM—12:30 PM

Are you ready for a little something different? Then let's play Hexball. The object of the game is to attain the highest score by Scoring Hexballs in their colored Scoring Zone and Goals, and by Parking and Balancing Robots on the Bridge. You begin with building a VEX IQ Robot with your team mate, then it's onto the programming. Students will be able to make their robot move autonomously as well as using a remote control.

Level
Self Pacing
Robotics, Mechanical Engineering, Programming
Time: Saturday, 11:00 AM—12:30
Cost:: $120.00

Explode the Code—Programming—Thursday, March 8—April 26, 4:00—5:30 PM

Learn about electrical engineering through hands on fun projects. Program LED sequences, sensors, sounds effects and explore and look to see what goes on inside computers and other electrical equipment. Students will wire breadboards, learn the basics of electronics and create custom schematics designs. They will also learn how to make their own breadboards to take home. A list of parts as well as resources will be given out on the last day of the workshop so that the fun will never end.

Level
Introductory no experience required
Technology, Programming, Electronics
Time: Thursday, 4:00 PM—5:30
Cost:: $120.00
Lab Fee: $15.00

Explode the Code—Programming—Saturday, March 3—April 21; 11:00 AM—12:30 PM

Learn about electrical engineering through hands on fun projects. Program LED sequences, sensors, sounds effects and explore and look to see what goes on inside computers and other electrical equipment. Students will wire breadboards, learn the basics of electronics and create custom schematics designs. They will also learn how to make their own breadboards to take home. A list of parts as well as resources will be given out on the last day of the workshop so that the fun will never end.
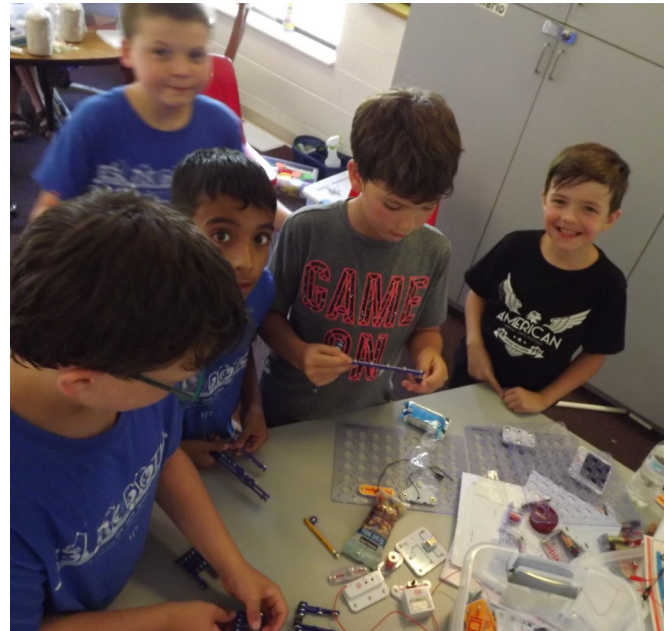
Level
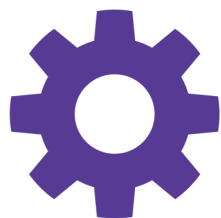Introductory no experience required
Technology, Programming, Electronics
Time: Saturday, 11:00 AM —12:30 PM
Cost:: $120.00
Lab Fee: $ 15.00

December

Maker Day— Saturday Dec. 16, 2017; 10:00 AM—12:00 PM

Make some of our favorite projects, think way outside the box, and discover the science behind fun engineering projects. Geared to teens.

Level
Introductory; no experience required
Mechanical, Electrical Engineering
Hands on activities and experiments
Time: Saturday 10 AM—12 PM
Cost: $25.00

Make and Take—Saturday Dec. 30, 2017; 10:00 AM—12:00 PM

If some is good more is better! A new set of making projects for the curious minded. Projects are geared to teens and their interests. Soldering, electronics and much more.

Level
Introductory; no experience required
Mechanical, Electrical Engineering
Hands on activities and experiments
Time: Saturday 10 AM—12 PM
Cost: $25.00

2018

Elevate Leadership Program—Tuesday, Jan. 9—Dec. 11, 2018; 6-8 PM

Our 21st Century Leadership program is designed to:

- Develop awareness of leadership styles and how to leverage strengths
- Explore decisive conflict resolution tactics
- Learn effective communication strategies
- Understand the power of social media and digital citizenship

Amplify impact by learning how to mobilize peers to achieve common goals

Level
Introductory no experience required
Leadership Development, Communication, Team Building
Time: Tuesday, 6-8 PM
Cost: $300.00

Elevate Leadership Program—Thursday, Jan. 11—Dec. 13, 2018; 6-8 PM

Our 21st Century Leadership program is designed to:

- Develop awareness of leadership styles and how to leverage strengths
- Explore decisive conflict resolution tactics
- Learn effective communication strategies
- Understand the power of social media and digital citizenship

Amplify impact by learning how to mobilize peers to achieve common goals

Level
Introductory no experience required
Leadership Development, Communication, Team Building
Time: Thursday, 6-8 PM
Cost: $300.00

Explode the Code—Wednesday, Jan. 10—Feb. 28; 1:00—2:30

Computer science class in which students use Scratch in the first few hours to understand the basic Computer Science fundamentals (sequencing, looping, branching and variables) and then move onto learning Python (Functional Programming). Students will assemble and create a Raspberry pi project. Using the python, and electronics knowledge gained in prior sessions. Students can bring their own Raspberry Pi Kit, pay the Lab fee or purchase one through Amazon.
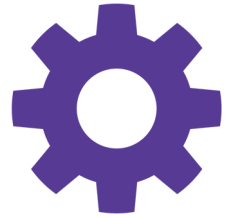
Level
Introductory no experience required
Technology, Programming, Electronics
Time:
Cost:: $120.00
Lab Fee: $69.99

Ages 11-14

Competitive Chess Team—Saturday, Jan. 6—May 12; 11:30—1:30

Chess is a valuable educational tool that helps teach important lessons including problem-solving, critical thinking, sportsmanship, patience and goal setting -- plus, it is fun! Introduce chess to students in a way that strategically introduces the basics first, so that students quickly learn to play a legal game of chess; Facilitate progressive growth through the sequential introduction of increasingly complex skills; Provide students, and parents, course goals and expectations; Provide framework to measure student results Levels are designed so that a typical third grade student could complete a Level within 10-15, one-hour classes.

Level
Self Pacing
Strategy, Critical Thinking, Sportsmanship, Problem-Solving
Time: Saturday, 11:30—1:30
Cost:: $150.00

Underwater Robotics Team—Wednesday, Jan. 9—April 25; 1:00—4:00 PM

Students work together to design, build, program, test and redesign underwater robots. Students engage in a series of design challenges or "missions" that gradually increases in complexity and ultimately leads to a fully functional underwater robot fully capable of completing mission challenges at the Regional Tournament.

Level Scout
Introductory; no experience required
Electrical & Mechanical Engineering Robotics,
Time: Wednesday, 1—4:00 PM
Cost: $250.00

Underwater Robotics Team—Saturday, Jan. 6—April 21; 2:00—5:00 PM

Students work together to design, build, program, test and redesign underwater robots. Students engage in a series of design challenges or "missions" that gradually increases in complexity and ultimately leads to a fully functional underwater robot fully capable of completing mission challenges at the Regional Tournament.

Level Scout
Introductory; no experience required
Electrical & Mechanical Engineering Robotics,
Time: Saturday, 2:00—5:00 PM
Cost: $250.00

Age 14-17

STEM CENTRAL

December

Maker Day—Saturday Dec. 16, 2017; 10:00 AM—12:00 PM

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Level
Introductory; no experience required
Mechanical, Electrical Engineering
Hands on activities and experiments
Time: Saturday 10 AM—12 PM
Cost: $25.00

Make and Take Saturday Dec. 30, 2017; 10:00 AM—12:00 PM

If some is good more is better! A new set of making projects for the curious minded. Projects are geared to teens and their interests. Soldering, electronics and much more.

Level
Introductory; no experience required
Mechanical, Electrical Engineering
Hands on activities and experiments
Time: Saturday 10 AM—12 PM
Cost: $25.00

2018

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Competitive Chess Team—Saturday, Jan. 6—May 12; 11:30—1:30

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Level
Self Pacing
Strategy, Critical Thinking, Sportsmanship, Problem-Solving
Time: Saturday, 11:30—1:30
Cost:: $150.00

STEM CENTRAL

All Ages are Invited

Saturday, Free Chess Club
9:00—11:00 AM

1st Saturday of Each Month

e3Robotics
Excite Educate Encourage