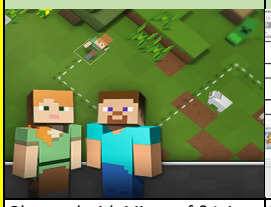
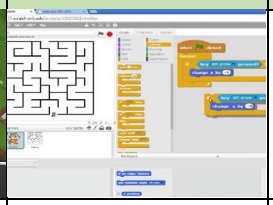
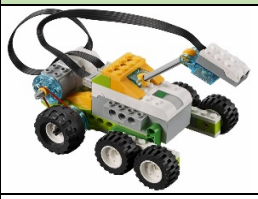
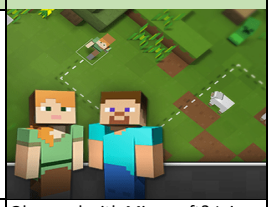
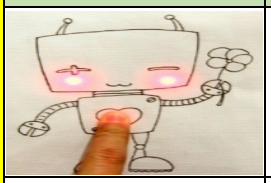
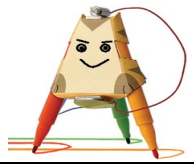
SUMMER CAMP 2019

at 144 West Farms Road, Farmingdale, NJ, 07727

STEAM Works Studio

Grades K-2

	July 8th - 12th	July 15th - 19th	July 22nd - 26th	Jul 29th - Aug 2nd	Aug 5th - 9th
9AM-12PM	**Coding w Minecraft (Coding)**	**Arcade Games (Coding)**	**Space Explorers (Robotics)**	**The Jungle Book (Robotics)**	**Coding w Minecraft (Coding)**
					
	Obsessed with Minecraft? Join Minecraft camp to create your own games & animations! Learn to code using SCRATCH's easy "drag and drop programming". All projects are with Minecraft as the theme for the week. Coding helps young kids learn to think creatively, reason systematically, & work collaboratively.	Kids learn to create their own games & fun stories & animations with SCRATCH using "drag and drop programing". SCRATCH, by MIT, helps young kids to learn to think creatively, reason systematically, & work collaboratively. Color coded, intuitive drag & drop block programming, as well as sounds, backdrop images and drawings are used. Get them to code!	A Robotics program with a SPACE theme! Think STAR WARS ™ and Lunar Landers & Mars Rovers! Have a blast using motors, gears, pulleys & motion sensors to create fun space themed builds! Campers will learn about simple machines like gears to create motion! Problem solving & logical thinking with block coding!	A Robotics program with a Jungle book theme! Think Mowgli™ and his animal friends! Monkey around using motors, gears, pulleys, and sensors to create fun Jungle themed missions! Campers will learn about simple machines like gears to create motion. It's problem solving & logical thinking with block coding!	Obsessed with Minecraft? Join Minecraft camp to create your own games & animations! Learn to code using SCRATCH's easy "drag and drop programming". All projects are with Minecraft as the theme for the week. Coding helps young kids learn to think creatively, reason systematically, & work collaboratively.
	LUNCH and Outside Play				
1PM-4PM	**Silly Circuits (Engineering)**	**Animal Safari (Robotics)**	**Crazy Chemistry (Science)**	**Super Science (Science)**	**Silly Circuits (Engineering)**
					
	Learn about Electronics while doing fun crafts. Add LED lights, Motors, Sound to your paper circuits ex Greeting Cards, Light houses that glow, Paper lanterns with LED lights, Origami projects. Explore the fun world of electronics! Our cool silly circuits with Lights, Sound and movement are bound to nurture the campers interest in Electronics!	Enhance students' curiosity and science and engineering skills with a wonderful introduction to ROBOTICS with LEGO Bricks, Tilt and Motion Sensors, Motors and gears, Block coding. Children will be buiding these fun Animal Robots with and then sensing and controlling them using block coding. Develop spatial thinking, motor skills, creative and logical problem solving!	Practical Chemistry is lots of fun! Learn about the chemistry that you encounter every day in your house and at school. Experiment hands-on with real chemical reactions and test different liquids, salt, vinegar and learn about chemistry. Create your own chromatography applied T-shirt to take home. What is Electrolysis? Make and eat exothermic ice cream!	Make paper planes and rocket craft, colorful straw rockets, balloon powered rockets, bottle airplanes, parachutes! Lots of educational activities for our Campful of scientists! Daily Hands-on Chemisty experiments like glow in the dark slime. See composition of air by trying a hands on fun experiment!	Learn about Electronics while doing fun crafts. Add LED lights, Motors, Sound to your paper circuits ex Greeting Cards, Light houses that glow, Paper lanterns with LED lights, Origami projects. Explore the fun world of electronics! Our cool silly circuits with Lights, Sound and movement are bound to nurture the campers interest in Electronics!

CAMP FEE: One Week Full day Summer Camp ($500/Week), 8:00-9:00 AM Early Dropoff ($50/Week), 4:00-5:30 PM Late Pickup ($75/Week), HOT LUNCH Option ($50/Week)

Register here

http://www.steamworksstudio.com/farmingdale

Questions? Call: **844 265 9880** or Email: **info@steamworksstudio.com**

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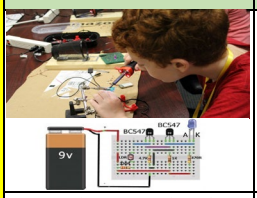
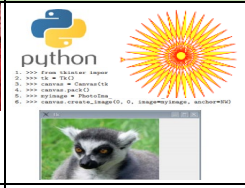
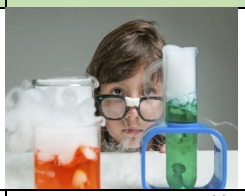
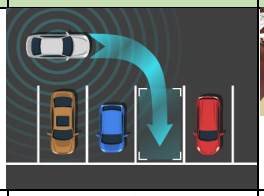
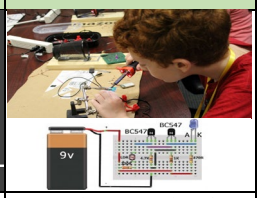
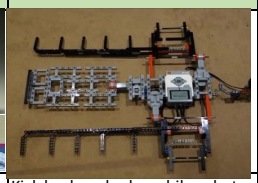
Grades 3-6

	July 8th - 12th	July 15th - 19th	July 22nd - 26th	Jul 29th - Aug 2nd	Aug 5th - 9th
9AM-12PM	**Electronics Lab I (Engineering)**	**Python & ART (Coding)**	**Crazy Chemistry (Science)**	**EV3 Driverless Cars (Robotics)**	**Electronics Lab II (Engineering)**
					
	Young makers can explore this exciting and popular field by learning the basics of electronic circuits and how electronic components work, which they can then apply to an idea of their own. They will be able to create their project using everyday materials. Students will use breadboards and will learn to build circuits that blink, squeak, tick, send signals & are touch	Python is a powerful, expressive programming language that`s easy to learn and fun to use. Python Art brings kids into the world of programming. Turtle graphics and tKinter allow students to enjoy making fun graphics, music, game & animation while learning Python language basics. A fun introduction to coding!	Practical Chemistry is lots of fun! Learn about the chemistry that you encounter every day in your house & at school. Experiment with real chemical reactions and test different liquids, salt, vinegar and learn about chemistry. Chromatography, Bath bombs, electrolysis, make exothermic ice cream! Make OOBLEK & bouncy balls!	Learn to design, build, power, and program robotic cars! Craft vehicles that can detect pedestrians and parallel park or self park autonomously at the push of a button! This is a great camp for enhancing students' engineering and robotics skills! Can you make a robot to seamlessly change lanes when you detect other cars?	Young makers can explore this exciting and popular field by learning the basics of electronic circuits and how electronic components work, which they can then apply to an idea of their own. They will be able to create their project using everyday materials. Students will use breadboards and will learn to build circuits that blink, squeak, tick, send signals & are touch
1PM-4PM	**Mars Mission I (Robotics)**	**Stop Motion Animation (Art)**	**Home Robots (Robotics)**	**3D Printing & CAD (Engineering)**	**Mars Mission II (Robotics)**
					
	In EV3 Mars Mission campers learn to build and program a Mars rover that conducts many different Mars related missions! They must work as a team to overcome a series of challenges including craters and uneven terrain. This camp prepares students for LEGO competitions of a similar nature. Campers will learn sensor control, programming, testing and engineering design!	You see stop motion animation all the time on TV, movies — even if you don't realize it. This camp offers children ownership & autonomy in the film making process & encourages problem solving. Kids learn to plan out where a story is heading and fosters iteration & experimentation through trying and testing! A plot, storyline, props and actors, 4 different techniques and hours of creative learning!	Kick back and relax while robots do the work for you! Learn to build robots that will fold your clothes, feed your pets automatically at set times, sweep and collect LEGO parts, and even alert you to intruders or make a self standing butler bot! This camp is sure to enhance students' engineering and programming skills!	The CAD and 3D Printing camp introduces students to 2-D sketching and basic 3-D modeling. Primitive shapes, measurement, hollow objects, assemblies Students learn the tools needed to design exciting projects. The last day is for coming up with your own complete design. Students keep the 3-D printed printed models that they make! Save all your work and continue learning more!	In EV3 Mars Mission campers learn to build and program a Mars rover that conducts many different Mars related missions! They must work as a team to overcome a series of challenges including craters and uneven terrain. This camp prepares students for LEGO competitions of a similar nature. Campers will learn sensor control, programming, testing and engineering design!

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SUMMER CAMP 2019

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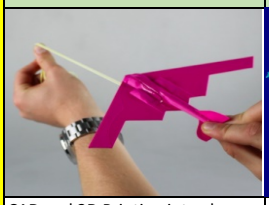
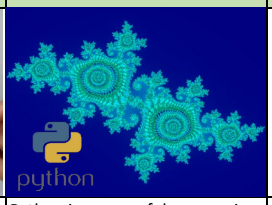
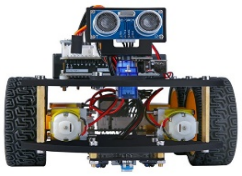
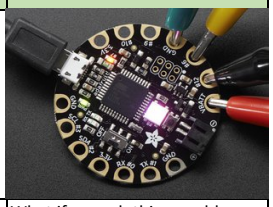
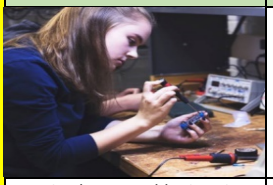
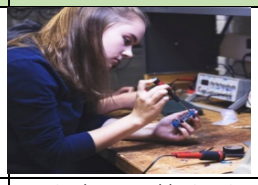
STEAM Works Studio

Grades 7-9

	July 8th - 12th	July 15th - 19th	July 22nd - 26th	Jul 29th - Aug 2nd	Aug 5th - 9th
9AM-12PM	**3D Printing & Digital Fabrication**	**Coding with Python (Coding)**	**Arduino Smart Car (Engineering)**	**Java Bootcamp II (Coding)**	**Wearable Electronics (Engineering)**
					
	CAD and 3D Printing introduces students to basic 3-D modeling. Primitive shapes, measurement, hollow objects & assemblies. Students learn the tools needed to design exciting projects. Students keep the 3-D printed printed models that they make! Save all your work and continue learning more!	Python is a powerful, expressive programming language that`s easy to learn and fun to use. We build cool Graphics & Games during the course. We use IDLE as a development tool as well as common Libraries that help with Graphics and Game building like tkinter and pygame to explore the power of Python language!	Learn the fundamentals of electrical engineering Explore autonomous robotics code with Arduino microcontroller and its sensor, motor eco-system. Understand & learn to write code for line tracking, obstacle avoidance, IR remote control & Bluetooth control with app on phone.	A Jumpstart to Coding! Begin with a quick programming orientation using the Eclipse environment. Campers will learn to program using best practices and understand what makes JAVA unique and so powerful. JVM, Objects & Classes, Data Types, Arrays, Decision Structures, File I/O & Graphics are introduced!	What if your clothing could change color based on mood or respond to your racing heartbeat? Welcome to the world of shoes that can dynamically shift your height, jackets that display when the next bus is coming, and neckties that can nudge your project partner across the room. Build your own Wearable!
1PM-4PM	**Electronics with Soldering I**	**Java Bootcamp I (Coding)**	**Android Mobile Apps (Coding)**	**Electronics with Soldering II**	**Coding for the Web (Coding)**
					
	Learning how to solder is quite easy and, with a little practice, you will be soldering your own electronics circuits. You can create something new that never existed before. Campers in this class learn about electronics circuits to build LED flashers, a radio transmitter, a touch sensing lamp, a 555 IC tone generator.	A Jumpstart to Coding! Begin with a quick programming orientation using the Eclipse environment. Campers will learn to program using best practices and understand what makes JAVA unique and so powerful. JVM, Objects & Classes, Data Types, Arrays, Decision Structures, File I/O & Graphics are introduced!	This Camp will teach you the basics of how to build an Android app using the Android Studio environment. Android Studio is an easy to use (and free) development environment to learn on. It's best if one has a working knowledge of the Java programming language for this tutorial because it is the language used by Android.	Learning how to solder is quite easy and, with a little practice, you will be soldering your own electronics circuits. You can create something new that never existed before. Campers in this class learn about electronics circuits to build LED flashers, a radio transmitter, a touch sensing lamp, a 555 IC tone generator.	Learn Database (MySql)and the full Web stack for creating useful data driven Web Sites. Learn HTML5, Javascript, CSS, MySQL with step by step easy to understand examples. You will create multiple end-to-end applications that will make you a confident Web Site developer for school or advanced home projects!

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