

BIOMEDTRACK -ROBOTICS

Summer Camp 2017

<u>Week</u>	<u>Science Session</u>	<u>Robotics Session</u>
June 12 - 16	<u>Plant Professor (PP)</u> Learn about parts of the plant and learn how they make their food and how they grow and survive	<u>Apprentice Robotics (AP)</u> Through hands-on experience, students will explore the use of gears, pulleys, wheels and axles, motors
June 19 - 23	<u>Nature & Nutrition (NN)</u> Know how nature provide us different nutrients and how to acquire those from natural sources. Also do hands-on experiment to gain experience how change in nature will imopact our nutrition.	<u>Freshman Robotics (FR)</u> Collaborate with your teammates to prepare an Infrared Wireless robot for a variety of activity-based challenges followed by a thrilling challengethat illustrates the need for "simplicity" and the pitfalls of "complexity".
June 26 - 30	<u>Weather Wizard (WW)</u> Through hands-on experiment learn about different weather factors, how to measure them; also prepare the weather chart of your area and finally become BioMedTrack Weather Person reporting next week's weather	<u>Robots on the Rampage(ROR)</u> Join us on an adventure that requires creative thought, time management and team communication as groups build a diverse range of off-road vehicles that battle other robots, race against the clock and play tug of war.
July 3 -7 (4 days)	<u>Chemistry of Color (CoC)</u> Learn how to create new colors and use different light source to change the appearance of color. Use your created color to dye your own toy and determine how to dye fabric or paper or plastic.	<u>Olympic Robot Games (ORG)</u> Discover how it feels to "Go for the Gold" using student-built robotic athletes. We will compete at soccer, kickball, jousting, wrestling, a MYSTERY Sport and a race across the finish line.

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<p>July 10 - 14</p>	<p><u>Fabulous Food Lab (FFL)</u> Know what is in our daily choice food and how to detect and analyze the components of your food. Take challenge to develop the most healthy diet using the knowledge of nutrition</p>	<p><u>Impossible Search and Rescue (ISR)</u> Robots that can climb up ropes to rescue Lego Mini Figure victims, rovers that can drive through and over any obstacle, and so much more. We want to know if your robot can save the day.</p>
<p>July 17 -21</p>	<p><u>Excavation at BioMedTrack</u> In these hands-on experiments kids will learn about different types of rocks and fossils and the processes by which they are formed and how they are eroded. Kids will also learn to test the hardness of the different types of rocks (sandstone, limestone, granite etc) and how to create model-fossils</p>	<p><u>Levers, Trebuchets and Catapults (LTC)</u> Medieval machines, catapults, trebuchets, draw bridges, hammers, clock and walking robots! Do you know the difference between a trebuchet and a catapult? Make a robotic clock and much more.</p>
<p>July 24 - 28</p>	<p><u>Science-Art Lab</u> Become Creative SciArtists! Learn the art of how to use Chemistry, Biology scientific molecules along with Symbols of Physics and Math to create Artistic Design</p>	<p><u>Robotic Golf Open (RGO)</u> Students will use their and creativity to design and modify unique golf. When students are not golfing, they are fighting for the most golf balls with Crabs in the sand trap and having a Golf Cart show down (maneuverability race and battle).Build a Hole-in-One Catapult!</p>

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<p>July 31- Aug 4</p>	<p><u>Eco-Lab</u></p> <p>Kids will be engaged in hands-on experiments to learn about ecosystem and science of ecology</p> <p>They will do experiments to learn things like a) How long it takes for trash to decay in the earth?; b) How you can make your own recycled paper? ; c) What happens to plants when acid rain falls? d) how to build your rainforest and many more.</p>	<p><u>DaVinci Inventors (DVI)</u></p> <p>Students will be introduced to Da Vinci's inventive machines. This is your chance to be challenged with projects built around creativity, design and engineering. Inventive minds will be able to build Odometers (to measure the distance a robot has traveled), Lifting Jacks (to hold & raise heavy loads) and HELICOPTER.</p>
<p>Aug 7 - 11</p>	<p><u>Science of Solutions</u></p> <p>Carry out experiments to learn the basic principles of Solvent-Solute-Solution;</p> <p>Learn how to create Saturated-Unsaturated and Supersaturated Solutions and their application in Nature and human Body; Osmosis and Diffusion and their application in living systems</p>	<p><u>Pirate with a Purpose (PWP)</u></p> <p>Well-seasoned students and crew design robots ready for adventures and excitement.. Maneuverable robots will be tested as they race against the clock and other pirates. Variations of Capture theFlag, Race AgainstTime,Obstacle/Maneuverability Courses all out Pirate Wars will be held with a robotic spin.</p>
<p>Aug 14 - 18</p>	<p><u>Magnet Science</u></p> <p>Experience Amazing Power of Magnets with fun activities with magnets; test the principles of magnets and its application in machines and toys</p>	<p><u>Innovative Edge (INV)</u></p> <p>Students will "Toy with Technology" to create innovative robots! Each activity based challenge will test your wireless robot's endurance, strength, speed and maneuverability.</p>

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Aug 21 - 25

Cell-DNA-Gene & Microscopy

Learn the Alphabets of Life and do experiments to isolate DNA from fruits, develop the model of DNA; Also Learn how to look for microbes under powerful microscopes; Create permanent slides with stains to look into different parts of plant and animal cells and organisms.

Robot Power Quest (RPQ)

The Balance of Power is now at stake. This class promises to revolutionize the way you think about robotics. You and your team will take our new "CONCEPT TO DESIGN" builds to a personal level with customization. This is a never-ending adventure to break the limits of your imagination in unique personalized robotic design. Come for the customization... come for the opportunity to design your own robots start to finish...