SUMMER CAMP 2021 JUNIOR

STEM & ROBOTICS
ROVE, DOWNTOWN

STEM for kids

JUNIOR STEM AND ROBOTICS SCHEDULE

Week	STEM Theme	Robotics
Week 1 4th July to 8th July	***Forces and Motion*** Explore different forces acting on objects and play with forces by creating different engineering designs – flying machines, blast-off space rocket, catapults and crossbows, cotton ball launcher, etc.	***Create and explore science robots*** Design, create, and code great science projects with LEGO elements and an easy, intuitive, block-based coding interface
Week 2 11th July to 15th July	***Light and Shadows*** Learn more about light – Do all the materials allow the light to pass? How are shadows formed? Make a light box. How do waves travel? Make a DIY lens and magnifying lens.	***Program a drone*** Learn the principles of aerodynamics, block-based programming, and exercise logic and use critical thinking skills while having fun with drones.
Week 4 25th July to 29th July	***Sun, Moon and Stars*** Explore more about our solar system – Find out about the planets in our solar system and the planet sizes; what makes rocket fly; know more about the constellations; what is rotation & revolution. Build a pinhole camera to view solar eclipses safely.	***Get started with robot electronics*** Explore the electronics of a robot with this simple, easy-to-run Arduino-based robot
Week 5 1st August to 5th August	***Water, water, everywhere*** Learn more about water – like what is water cycle, other characteristics of water with different experiments, tell the time with a DIY water clock, build dams like beavers to prevent flash floods, and learn ways to get clean water from dirty water	***Explore machines and mechanisms*** Build and explore real-life machines and mechanisms: investigate powered machines that run on motor
Week 6 8th August to 12th August	***Animal Habitats and adaptations*** Explore how the animals adapt to their surroundings. Learn about camouflage, bird beak adaptation, aquatic adaptation, paw adaptation, and vision adaptations	***Create and explore science robots*** Design, create, and code great science projects with LEGO elements and an easy, intuitive, block-based coding interface
Week 7 15th August to 19th August	***Sound and vibration*** Learn more about sound like - how does sound travel, create devices that can amplify sound, and create musical instruments	***Program a drone*** Learn the principles of aerodynamics, block-based programming, and exercise logic and use critical thinking skills while having fun with drones.
Week 8 22nd August to 26th August	***Earth Ambassadors*** Become an Earth Ambassador, learn about sustainability with these activities, make plastic from milk, build a windmill, turn dirty water into clean water, make a greenhouse	***Get started with robot electronics*** Explore the electronics of a robot with this simple, easy-to-run Arduino-based robot