CAMP PROGRAMS OVERVIEW

LEGO ROBOTICS CAR OBSTACLE COURSE

Kids will learn how to use wheel diameter, gear ratio, 4-wheel drive, tire grip, break-over angle, weight distribution concepts as they learn how to make better cars as well as solve challenges. Lego Robotics is a fun way to get kids to think outside the box and also inspires creativity in them.
Kids will Solve Real-World Engineering Challenges By Building With LEGO And Coding With Scratch Or Python.

SPACE WORLD EXPLORATION

Do you think the first spaceship was designed the way it looks now? Kids will explore, learn and apply math, physics, and engineering in this camp. From designing rockets and blimps to creating universes and clocks, students will be engaged the entire time. Kids will design, build and fly complicated ships, and to launch them in a simulator their Math skills must be strong. They will acquire engineering skills by experiencing launching their machines into fictitious and fun space. They will set goals, build rockets, evaluate mission results, change designs, and try until they succeed! We teach kids not to be afraid of failure but, have a true rocket scientist mindset. Apply iterative design concepts to master skills. Activities that campers can complete during missions include Bottle Rocket Launches, 3D Designing a spaceship challenge, Rocket Launching with Roblox, Designing a Custom Space Suit, and Building a Rover!

ROBLOX STUDIO

Create your very own spaceship and race it on an alien planet. We will focus on light and camera. Kids will learn 3D modeling, animation and coding as you publish a game on Roblox. They will learn human anatomy as part of this curriculum to make their body move in the game. Roblox is one of the fastest-growing game creation platforms. The best way to learn coding and learn game design fundamentals. At Roblox Camp, campers design and create their own 3D worlds. Kids will practice programming fundamentals with Lua. Kids will use Roblox's built-in editor to create 3D worlds. They can start sharing and publishing their games on any platform. Kids will study existing hit games and learn how to implement some of the same strategies in their own games. The kids will be working depending on their experience to create their own games in roblox
Roblox Editor: Make Your Own Story (Ages 7–9).
Roblox Entrepreneur: (Imaginative Game Design - Ages 10–12).
Roblox Entrepreneur: Lua Coding and Game Scripts (Ages 10–12).

CREATIVE DIGITAL ART

Learn how to use digital tools to draw and paint, understand the software and the tools you need. Students get to show off their artistic abilities on the computer with digital art software like Krita and Clip Studio Paint. In this fun class, kids will learn how to design and draw clothes for their own unique characters by drawing on the X PEN tablets, as well as learning how to use the various tools provided in the software program.
We will start with the fundamentals of Procreate and Krita for kids ages 6 to 9. Older kids will work in clipart studios and photoshop.

BUILD YOUR OWN APP

Kids will build their own apps (quizzes or games) and will learn the basics of the Graphical User interface. They will test user-friendliness by asking other kids to try their apps and improve the features. We have this program available for all levels. We will use tools based on the age and experience of a child to create apps and learn new skills. Kids will download apps on Android devices and play their own cool games. We will have a demonstration of their creation at the end of the camp. Who knows, kids will launch and market their apps! Older kids will use Swift and Python to create apps.

CIRCUITS / MICROBITS / ELECTRICAL ENGINEERING

Micro-bits, little-bit, and many more included in this camp to provide challenges in the classroom. This is an exciting camp where kids will learn to be electrical engineers and design fun projects like robotic hands or dance pads. This camp is fun for those who love building AND technology! Kids will follow instructors to a challenge of wiring up a doorbell or create a dancing robot using simple motors and materials. Design a fully functioning garage door opener with circuits you have designed yourself! With many different design projects to choose from, the only limitation is your imagination! Students develop, revise, and use a model to describe how birds can land on power lines without getting shocked.

3D MODELING AND DESIGN / 3D ANIMATION

Lets spark students' creativity using this course. Create your own world using imagination. We will help kids develop critical thinking and help them use tools to bring their imagination to real-world. In this course, students will work on several projects to learn 3D Modeling, Animation. Students will create their own 3D objects, and move them using animation. They will also use rendering techniques along with creating scenes with proper lighting, compositing and motion tracking.
By the end of this course, students will understand material creation, texture to apply to their objects. They will be able to use simulations and animation to create games and videos.
We will make sure students will understand the 3D Modeling and Design, rigging, animation, simulation.

GAME DESIGN / GAME STUDIO

Using different tools for different ages the students will learn how to design and create their very own video games. The students will learn about different genres and what makes good game design and then using the skills they learned and either Scratch, Construct, or Unity to bring their game to life through coding.

LEGO ROBOTICS / EV3 CHALLENGES

Students will use the power of LEGO robotics to build machines that can complete specific tasks. Along the way students will have fun building with LEGOs while learning about simple machines such as motors, pulleys, and levers. This fun challenge aims to teach the basics of engineering and real-world problem solving skills to the class.

AR STUDIO / VR GAMES

Students will dip into the power of Alternate Reality and Virtual Reality in order to use code to change the world around them. Students will learn to code on our software in order to make animals appear around them in the world or make a whole virtual world they can play inside of through Virtual Reality goggles.

DESIGN YOUR WEBSITE

Students will learn how to code and what kind of work goes into designing different websites with different purposes. The students will first spend time learning the basics of website design and how to present text and pictures to a user effectively. We will be teaching JavaScript and HTML to the students as different programming languages and use these languages to create basic websites.

DRONE CODING

Students will get into the mind set for computer programming as they use a typing language or block coding to make a drone fly around the room and complete certain tasks. Based on age or experience students will use coding to achieve real world results that really help visualize what their code can do. A drone will be sent around to land in certain areas, avoid obstacles, and more led only by the students code.

MINECRAFT CODING

Combining the fun of Minecraft and the power of Python programming language we help kids learn how computer science can be fun. The students will learn the basics of Python programming and use it to change what happens in their own Minecraft world. They can connect their Python scripts to Minecraft and using their own code will cause a waterfall to appear or leave a trail of gold.

BLOCK CODING

Block coding is the perfect introduction to learning to program for young children. Coding can be a daunting task but when introduced in neat blocks of code that snap together to accomplish a task is much easier for a child to understand. Using block coding and Scratch kids will learn the basics of computer science like variables, if-then-else statements, and loops and use these in fun ways like simple game design.

PYTHON CODING

Python is a simple programming language that lacks the difficulties of the usual languages. It is a great starting point for a kid trying to expand his skills into actual programming. Using the power of python we will teach students the basics of computer science such as variables, comparisons, if-then-else, and loops.

JAVASCRIPT GAME

Using the programming language JavaScript students will learn common uses of the language such as website design. They will then learn the basics of computer science using JavaScript and create their own game in JavaScript using the basics they have learned. Including taking input from the computer user in order to play a randomized game of hangman.

ROBOTICS (BIOMIMICRY, PNEUMATICS, RENEWABLE ENERGY)

Students learn advanced concepts and relate them to the world of robotics. Our first work is in biomimicry, which is the engineering process of using nature as inspiration for robotics, such as studying birds to make a robot that flies. The second concept is pneumatics in which students use air pressure and tubes to control a robot's pistons. And the third concept is renewable energy, like how we can harness solar energy to power a small robot forever.

DESIGN A RACE CAR

Students will learn circuits in order to design and build a small race car. Along the way the students will also learn about aerodynamics and physics so that they may use these skills to design the fastest race car in the class.