RoboticSchools

BEGINNER LEVEL CURRICULUM

40+ CLASSES | 23+ PROJECTS | 7+ PLATFORMS | 15+ QUIZZES

#21ST CENTURY SKILLS

CODE

BUILD

RUN

www.roboticschools.com

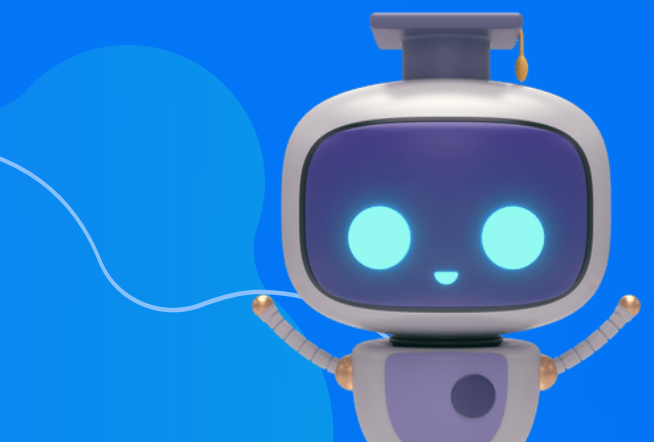
About RoboticSchools

Roboticschools is an e-learning platform intended for children. The company's platform provides live 1:1 and 1:2 learning sessions with qualified engineers and educators worldwide, enabling children to learn about engineering and coding from the comfort of their homes. And provides 21st-century skills to schools.

Our Vision

Best Provider of online & offline learning platforms intended to deliver high-quality, engaging, and accessible technology education (i.e., Robotics, Coding, Artificial Intelligence, Machine learning, Automation). The company's platform makes use of original content, watch-and-learn videos, rich animations, and interactive simulations that make learning contextual and visual, not just theoretical, enabling each learner to receive a personalized experience.

Our aim is to provide technology education (i.e., Robotics, Coding) accessible, affordable to all.



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Benefits for Kids

Improves Academics

Productive Ideas

Creativity Skills

Problem Solving Skills

Logical Thinking

Learning by Building

#21st Century Skills

Let's Start the Course in RoboticSchools

Select a Course

Learn with us

Code and Build for Future

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BEGINNER LEVEL

RoboticSchools

What Kids learn from this Level ?

Code.org Sequencing | MIT Scratch Blocks | Circuit Simulations | App Design | Math & Co-Ordinates | Arduino Coding

35 Classes

10 Classes

Course - A

- Drag and Dropping
- Sequencing
- Introduction to loops

Course - B

- Nested Repeat
- Debugging
- Mini Project

Course - C

- Nested Loops
- Flappy Bird Game
- Chase Game

MineCraft - 4 Courses

- Minecraft Sequencing
- Repeat until Blocks
- Controlling Player
- Introduction to Functions
- Build a Home
- Use of Forever block
- Adding sound and score
- Project - Survival World

Dance Party

- Adding new Sprites
- Make the dance moves
- Mini Project

10 Classes

Scratch Intro

- Moving the sprites
- Animate the Sprites
- Control of Direction

Hide and Seek

- Random Positions
- Conditionals
- Intro to variables

Catching Game

- Sensing blocks
- Automate the sprites
- Adding Score

Bouncing Ball

- Switching Costumes
- Adding player lives
- Broadcasting Event

Maze Escaper

- Design of Sprite
- Touching Color Event
- Adding Sounds

Project 2.0

- Design of platform
- Continuous background
- Advance Color Effects

10 Classes

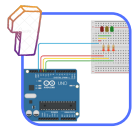
Electronics Intro

- Current, Voltage
- Use of Battery
- Use of Resistor

Blink the LED

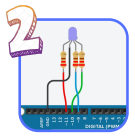
- What is LED?
- Intro to Microcontroller
- Use of BreadBoard

Traffic Lights



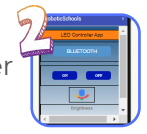
- Use of Delay block
- What are Digital pins ?
- Arduino Connections

Magical Disco Lights



- Why RGB is having 4 Pins?
- Using Color Codes
- Connections with Arduino

LED Control App



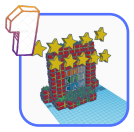
- Design UI for the App
- Intro to Bluetooth Client
- Button Events

RGB LED Control App

- Drawing and Animation
- Sending data to Arduino
- Indexing and substring

10 Classes

Basics of 3D Design



- Basic Shapes
- Solid shapes grouping
- Dimensions

House Design

- Merging Shapes
- Adding Scenery Parts
- Extruding shapes

F1 Car Design

- Existing 3D designs
- Converting shapes
- Rotation and Merge

3D Text illusion

- 3D Text
- Object Alignment
- Duplicates

Character Design

- Revolving shapes
- Scribbling
- Symmetrical Design

Code Blocks - 3D Robot

- Blocks Coding
- Creating Variables
- Scale, Move and Copy

10 Classes

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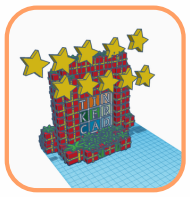
Detailed Robotics Curriculum

Basics of 3D Design



- Basic Shapes in Designing Platform
- Workspace mouse controls
- Mathematical Dimensions
- Grouping of solid shapes
- 3D view cube movements
- Import 3D designs from local files

3D Text illusion

- Inserting 3D Text into the workspace
- Multiple object alignment
- Duplicate and repeat option
- Symmetrical spacing between letters
- Orbit shortcuts
- Design views

House Design

- Merging design shapes into one part
- Adding scenery designs into the workspace
- Extruding dimensional shapes
- Changing properties
- Lock editing
- Using Ruler Tool

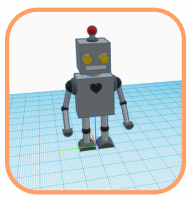
Character Design

- Revolving shapes around the object
- Scribble on the workspace
- Symmetrical Design
- Creating a new workspace
- Radius of the shapes
- Step count

F 1 Car Design

- Importing Existing 3D designs
- Converting shapes
- Rotating shapes
- Merging into the base design
- Long Extruding
- Rainbow Coloring

Code Blocks - 3D Robot



- Blocks Coding
- Creating Variables
- Move, Scale and Copy blocks
- Multiple optional shape block
- Co-ordinates axes
- Creating a group of shapes

10 Classes

Detailed CODE.ORG Curriculum

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Course - A

- Learn to Drag and Drop Blocks
- Programming with Blocks and Adding Direction Blocks
- Debugging the Challenge by rearranging the blocks
- Sequencing with BB-8 Robot (Star wars - character)
- Introduction to Repeat block to reduce the number of blocks in a challenge
- Mini Project - Jorge the Dog

Course - A Certificate

Course - B

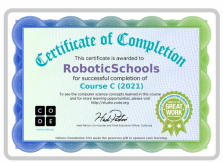
- Linear Sequencing with Angry bird
- Step button Debugging for checking the Blocks
- Drawing Garden with Loops
- Using collect block to get points and Nested Repeat
- Trivia challenges in each lesson.
- Geometry - Angles with specific directions
- Mini Project - Royal Battle Jr.

Course - B Certificate

Course - C

- Prediction of result using Blocks
- Advanced Nested Loops
- Creating Art with Code
- Building Flappy Bird Game
- End of course project
- Mini Project 1 - Sticker Art
- Mini Project 2 - Chase Game

Course - C Certificate



Dance Party

- Adding new Sprites into Workspace
- Make the dance moves using keyboard arrows
- Setting up background effects using event blocks
- Switching dance moves using " measure block "
- Adding different background songs with dropdown
- New animal and Fruit Characters
- Mini Project - World Dance Crew

Hour of Code Certificate

MineCraft

Voyage Aquatic

- Minecraft Sequencing Blocks
- if Conditionals
- use of repeat until block
- Skipping Sequence to save the player
- Turn Left, Right and Directional blocks in Minecraft

Level - 1 Certificate

Hero's Journey

- Control player using Arrows
- Introduction to functions
- multiple maps in each stage
- Advantage of repeating inside a function
- Multifunctional code
- Project - Build the World

Level - 2 Certificate

Adventurer

- Choice of Home Maps
- Farm crop using block programming
- Save the player using if Block
- Cut the wood using collect event
- Mini Project - Build rail track to Minecraft Home

Level - 3 Certificate

Designer

- introduction to Random blocks
- Advanced function blocks
- Adding sounds to characters
- Use of forever block
- Adding score
- End of Course Project - Survival World

Level - 4 Certificate

10 Classes

Detailed MIT Scratch Curriculum

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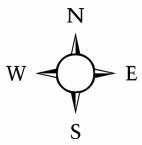
Introduction

- Adding Sprites and Backdrops
- Introduction to Moving the Sprites
- Code the Spite to move using Arrows
- Make the Sprite to Animate
- Changing Sprite Properties using blocks (size, Direction, show, hide and switch costumes, etc.,)
- Color the Sprites with gradients



Hide and Seek

- Adding thumbnail to the game
- Advance costume Effects (ghost, mosaic, pixelate, whirl etc.,)
- Change of sprite direction
- Conditions to stop the game
- Creating own sprites
- Learn math Co-Ordinate system

Catching Game

- Intro to Control blocks
- Code sprite to particular places
- Introduction to Conditionals (If and else ...)
- Use of Sensing blocks
- Knowing what is a variable?
- Automate the sprites to move from one place to other places without controlling manually.
- Adding score event using variables

Bouncing Game

- Introduction to Loops in MIT Scratch
- Switching Costumes using look blocks
- Adding player lives
- use of "If on Edge, bounce" block
- Triggering Events when one sprite touches other sprite
- Broadcasting the messages to all sprites

Maze Escaper

- Creating Own maze in scratch editing canvas section
- Condition to Touching colors
- the kid will run How to run the condition continuously throughout the game?
- Adding Timer event
- Create your own Game over and win Costumes
- Switch Backdrop method using blocks

PROJECT 2.0

- Explore Clone feature in Scratch
- Adding Multipleobstacles into the screen and automating them.
- Adding Background music and sound effects
- Advantages of pick random option
- Co-Ordinate system - positional conditions
- How do Share projects with friends?

10 Classes

Detailed Robotics Curriculum

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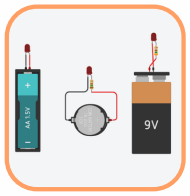
Electronics Intro

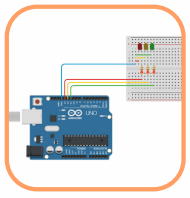


- What is current, Voltage, Battery?
- How do devices get powered by Battery?
- Use of Resistor
- What is Circuit?
- Why do we need to use wires instead of threads?
- Simulation of LED's connected with Batteries
- Fixing Errors in connections

Blink the LED

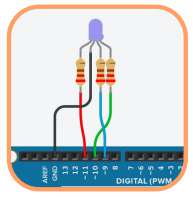
- Introduction to Microcontroller (Arduino)
- What is LED and how does it work?
- Basics of Arduino block-based coding
- Connecting components to Arduino
- What is a breadboard and its uses?
- Real-Time Experience of the same project
- Finding bugs in the code

Traffic Lights



- Connecting multiple components to Arduino
- Difference between Analog and Digital pins
- Sequencing blocks in Tinkercad
- What are Inputs and Outputs?
- Switching colors using blocks
- How do the Traffic Lights Work?
- Simulation and Real-Time Project

Magical Disco Lights



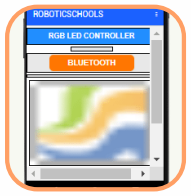
- What is RGB LED?
- Why does RGB LED is having 4 pins?
- Using RGB color code in programming
- Default block for RGB LED
- Difference between the anode and cathode RGB's
- Working of RGB LED
- How to get all the colors from one LED?
- What will happen if the resistor is not connected?

LED Control Android App

- Introduction to MIT APP Building Technology
- Designing User Interface (UI) for the APP
- Intro to Bluetooth, Buttons, Layouts, slider, etc.,
- Switching of Events with simple blocks
- change of component properties manually and using coding
- How to add Bluetooth feature to the Android APP?
- Build and Install first Android App in Mobile

START

RGB LED Android App

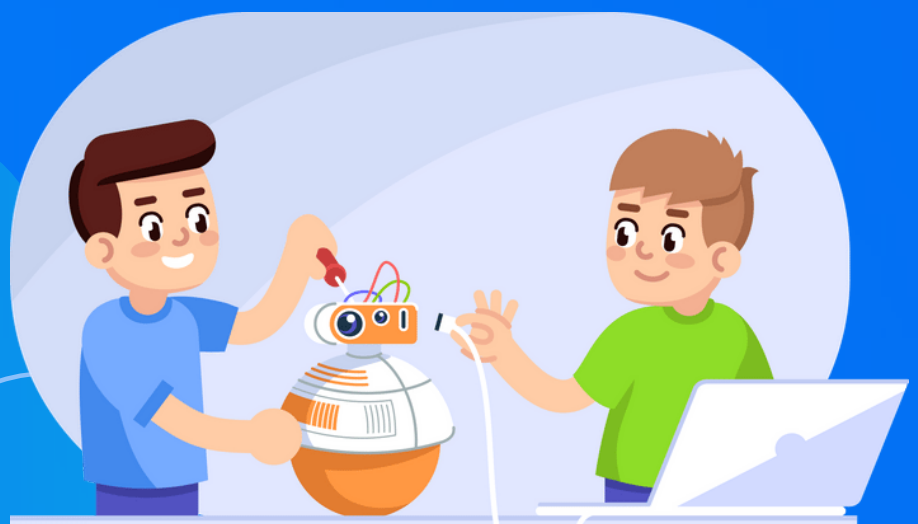


- Design of User Interface for RGB LED App
- Adding Canvas and ball to select a specific color from mobile itself
- Adding Labels to display information to User
- If, else conditions
- Sending messages from mobile to Arduino
- How do get the pixel Colors?
- Intro to Indexing and substring concepts in Arduino code

Come and Join with us

To Experience the Fun of Building Robots

BOOK A FREE CLASS



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