

Where Dreams

Come to

Real Life



Computer vision & AI

Discover Create Robotify!

Grades 8-12

Live 1:1 or 1:2 Online | Offline classes
Personalised curriculum | Monthly Fee structure



Welcome to Roboticschools

Program Overview



Children have an innate love for all things joyful and fun. Our mission is to unleash their full potential through a wide range of interactive and multidisciplinary programs.

At Roboticschools, we've redefined learning by making it a delightful and playful experience. We encourage children to explore their passions and uncover their hidden talents. Our curriculum takes a playful approach to cover a wide spectrum of subjects, from coding and design thinking to cutting-edge technologies like AR, VR, Robotics, IoT, and the ever-evolving domains of artificial intelligence and machine learning.

A Roboticschools student embarks on a journey of self-discovery and skill development, reaching their maximum potential through our meticulously crafted programs. These skills complement their regular school curriculum, leading to improved academic performance.

Our methodology is designed to help students grasp complex concepts in science and mathematics through coding, visualizations, and animations. We offer a unique curriculum that instills new-age skills in children, preparing them for success and the ability to tackle any challenge that comes their way. As they learn with us, their relationship with technology shifts from that of a consumer to that of a creator.

Join Roboticschools and let your child's learning journey be a joyous adventure in discovery and creativity."

About Curriculum

At Roboticschools, our curriculum is meticulously crafted to unlock the genius within your child. We offer a comprehensive technology program for kids, spanning from laying a strong foundation in coding to fostering scientific exploration, nurturing design thinking skills, and delving into the world of robotics. What sets us apart is our commitment to providing specialized expertise across various technology domains, making us the premier choice for holistic tech education.



Hands-On Learning

Creativity
and Problem-Solving



Progressive Skill Building

Fun engagement



Advanced technology



Computer Vision & AI Robotics

- Explore how computers "see" with image recognition and object detection using camera.
- Dive into the world of AI, exploring pattern recognition to understand how machines learn.
- Engage with computer vision and AI, from creating image filters to training ML models for recognizing shapes and colors.



30 Classes



25 Projects



35 Concepts



1: OPenCV installing and **computer vision basics**

Objective: Install OpenCV on Raspberry Pi and grasp fundamental concepts.

Learning Outcomes: Successful installation of OpenCV on Raspberry Pi, understanding essential computer vision principles.

2: Writing text on the live camera

Objective: Overlay dynamic text on live camera feed using OpenCV.

Learning Outcomes: Integration of dynamic elements in computer vision projects.



3: Hand Distance Measurement

Objective: Measure the distance between hands using OpenCV.

Learning Outcomes: Hand tracking and distance calculation using CV in hand gesture recognition.



4: Eye Blink Counter

Objective: Create an eye blink counter using CV for monitoring eye.

Learning Outcomes: Eye detection and tracking, blink counting algorithm implementation.



5: Finger Counter

Objective: Build a finger counting using OpenCV for recognizing hand gestures.

Learning Outcomes: Hand and finger segmentation, gesture recognition in computer vision.





6: Traffic Sign Classification

Objective: Implement a system for recognizing traffic signs using OpenCV.

Learning Outcomes: Image classification techniques, integration of machine learning for traffic sign recognition.

7: Parking Space

Counter

Objective: Develop a system to monitor and manage parking availability.

Learning Outcomes: Object detection in real-world, parking space occupancy tracking.



8: Virtual Calculator

Objective: Create a virtual calculator that recognizes hand-drawn digits.

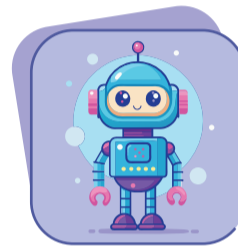
Learning Outcomes: Image processing for digit recognition, building interactive apps with CV.

9: ChatGPT

integrating with PI

Objective: Integrate Chat GPT for conversational AI capabilities.

Learning Outcomes: API integration with ChatGPT, building a conversational interface.



10: Raspberry pi AI bot

Objective: Develop an AI-powered bot on Pi for various applications.

Learning Outcomes: Integration of AI with Pi, building a versatile AI-driven system.

11: Raspberry pi Alexa Assistant

Objective: Create a voice-controlled assistant on Pi with Alexa integration.

Learning Outcomes: Voice recognition implementation, integration with external services like Alexa.



12: Gesture controlled Lamp

Objective: Build a lamp that responds to hand gestures on Pi.

Learning Outcomes: Gesture recognition in real-time, hardware integration with CV.



13: Elbow angle finder using picamera

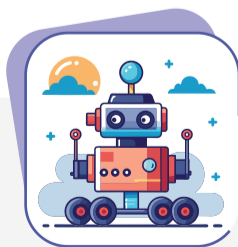
Objective: Develop a system to calculate the angle of the elbow joint.

Learning Outcomes: Joint angle calculation, real-world application of pose estimation.

14: How To Scan QR Codes With Pi

Objective: Implement QR code scanning functionality using Pi and OpenCV.

Learning Outcomes: QR code detection and decoding, integration of QR code scanning.



15: Line Following Robot using camera

Objective: Build a robot that follows a line with a camera on Raspberry Pi.

Learning Outcomes: Line tracking algorithms, integration of camera-based navigation.



16: Animatronic Eye Tracking

Objective: Create an animatronic system with eye tracking on Raspberry Pi.

Learning Outcomes: Eye tracking principles, mechanical integration with computer vision.

17: Object detection and Tracking Robot

Objective: Develop a robot that can detect and track objects in its environment.



Learning Outcomes: Object detection and tracking, integration with robotic systems.

18: Object Identification & Animal Recognition

Objective: Implement a system that identifies and recognizes animals.



Learning Outcomes: Animal recognition algorithms, integration of multiple technologies.

19: Face recognition and Tracking robot

Objective: Build a robot capable of recognizing and tracking faces.



Learning Outcomes: Face recognition and tracking, integration with robotic systems.

20: Face & Movement Tracking System

Objective: Develop a system that combines face recognition with movement tracking.



Learning Outcomes: Face tracking, pan-tilt control, integration of robotic components.

21: Hand Tracking & Gesture Control Robot

Objective: Build a robot that can track hands and respond to gestures.

Learning Outcomes: Hand tracking algorithms, gesture recognition, integration with robotic systems.



22: AI student attendance system

Objective: Create an AI-based system for recording student attendance.



Learning Outcomes: Facial recognition for attendance tracking, database integration.

23: AI waste management System

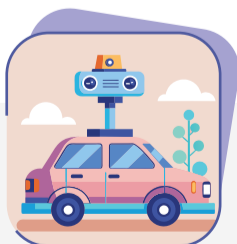
Objective: Develop an AI-driven waste management system.



Learning Outcomes: Machine learning for waste prediction and smart waste solutions.

24: Raspberry pi surveillance Robot

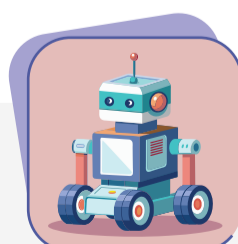
Objective: Build a surveillance robot with cameras for monitoring.



Learning Outcomes: Integration of camera systems, remote surveillance control.

25: Self Driving Raspberry pi Robot

Objective: Create a self-driving robot with CV for autonomous navigation.



Learning Outcomes: Autonomous robot control, path planning algorithms using openCV.



Register Now



**ROBOTIC
SCHOOLS**

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