

AI & ROBOTICS INNOVATORS PROGRAM (CLASS 6–8)

12-MONTH STRUCTURED CURRICULUM | NEP-2020 ALIGNED

Month 1: AI Foundations

- Types of AI, Real-life applications
- Case studies: Tesla, drones, voice AI

Month 2: Advanced Block Coding

- Variables, functions, events
- Build interactive games

Month 3: Python Basics

- Print, input, conditions, loops
- Mini-projects: calculators, patterns

Month 4: Robotics Fundamentals

- Microcontrollers, motors, drivers
- Build: Light-based robot demo

Month 5: Sensors & Automation

- IR, ultrasonic, temperature sensors
- Projects: Smart dustbin, auto-light

Month 6: Machine Learning Basics

- Classification, predictions
- Image & gesture recognition projects

Month 7: Computer Vision

- Pixels, detection, filters
- Projects: Hand gesture control, face detection demos

Month 8: Natural Language Processing

- Chatbots, text classification
- Build rule-based chatbot

Month 9: Internet of Things (IoT)

- Smart home automation
- Temperature & soil moisture projects

Month 10: Design Thinking & Innovation

- Empathize, ideate, prototype
- Solve community problems

Month 11: Python Intermediate

- Lists, functions, loops
- Mini-games, quizzes

Month 12: Final Project & Exhibition

- Smart home, AI classifier, robot
- Demo day with parents