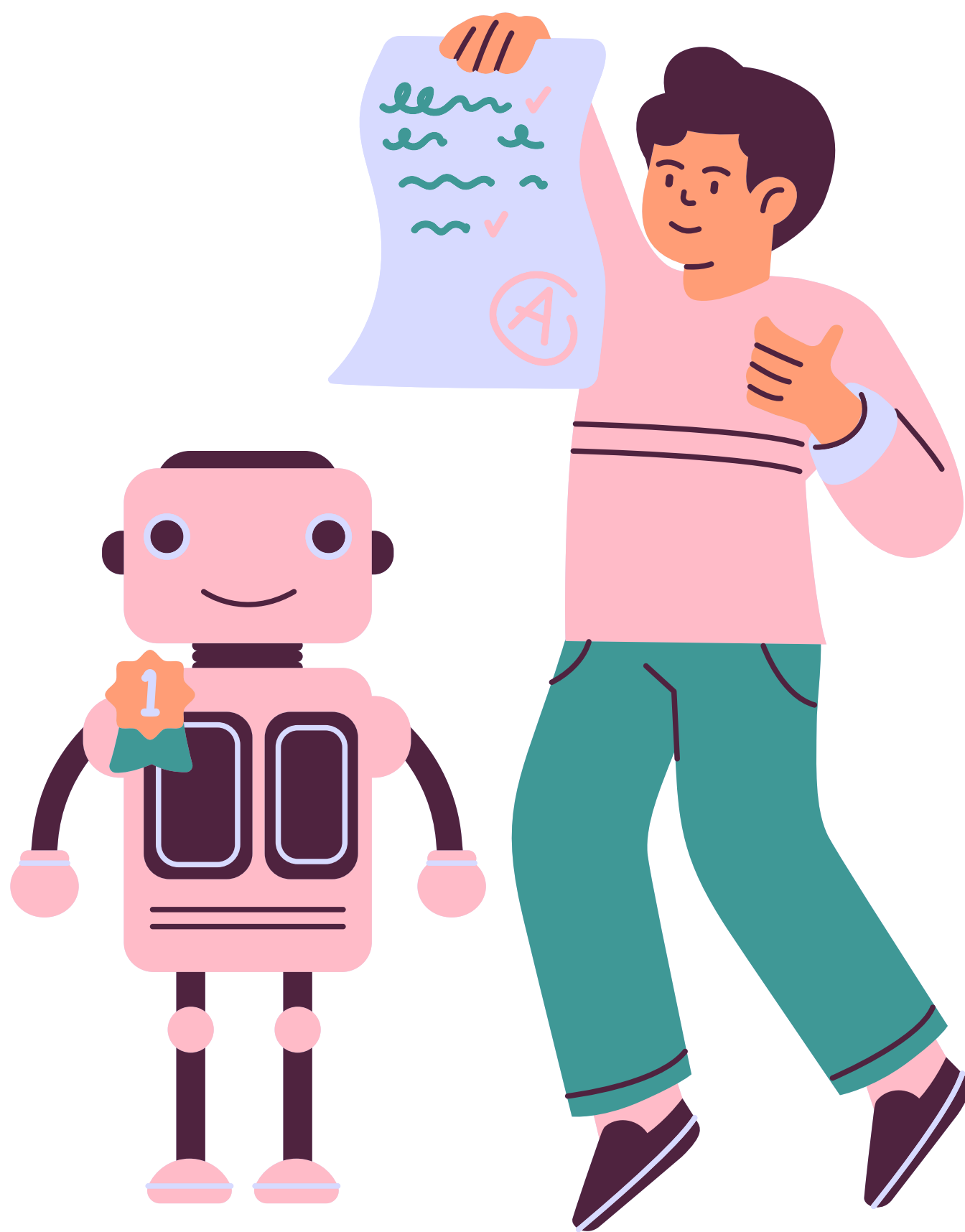


ROBOTICS COURSE



This syllabus belongs to

CLASSIC LEARN

Kids Robotics course

Weekly Academic Structure (12 Weeks)

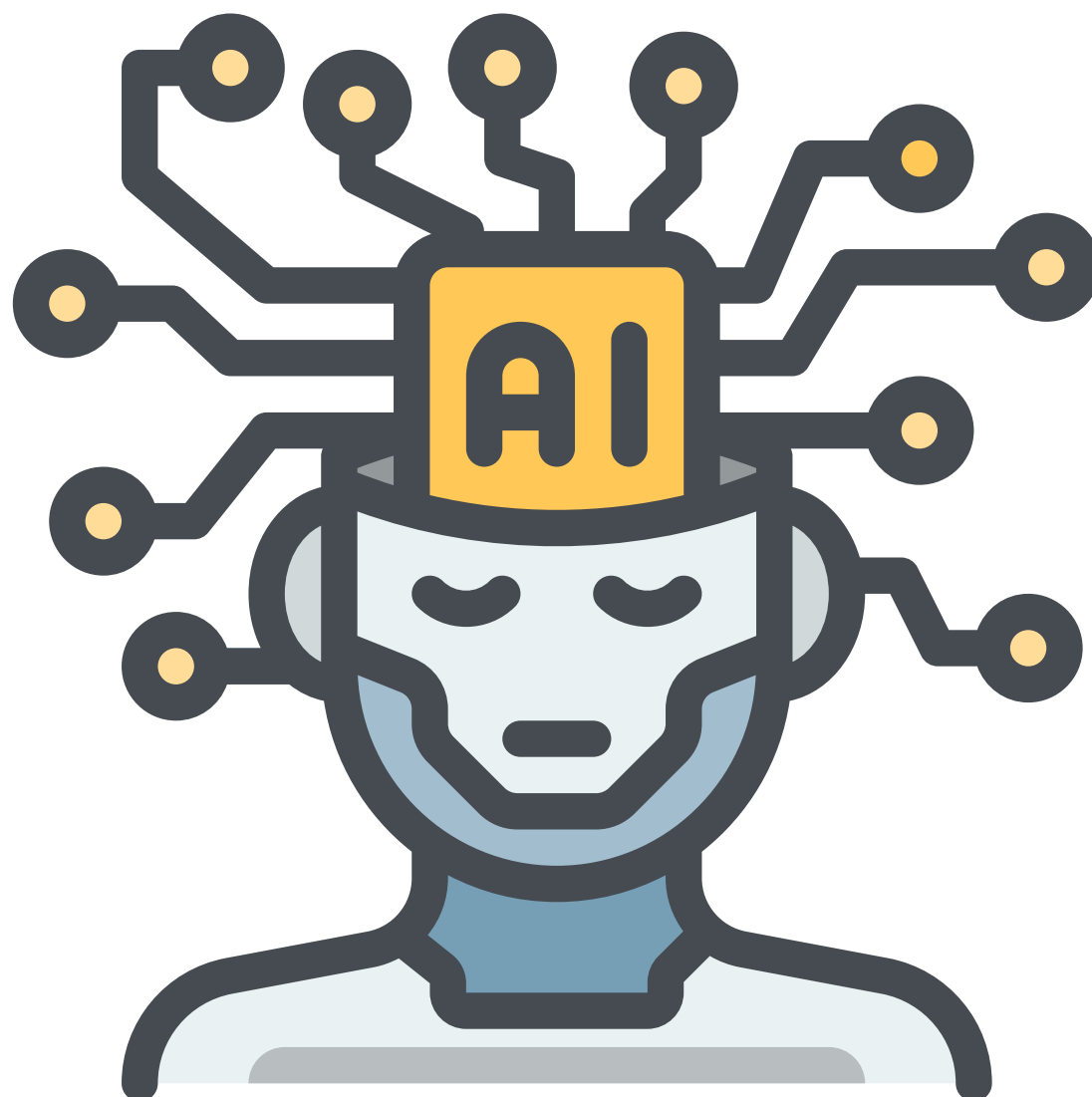
Duration: 12 Weeks

Classes per Week: 3

Total Classes: 36

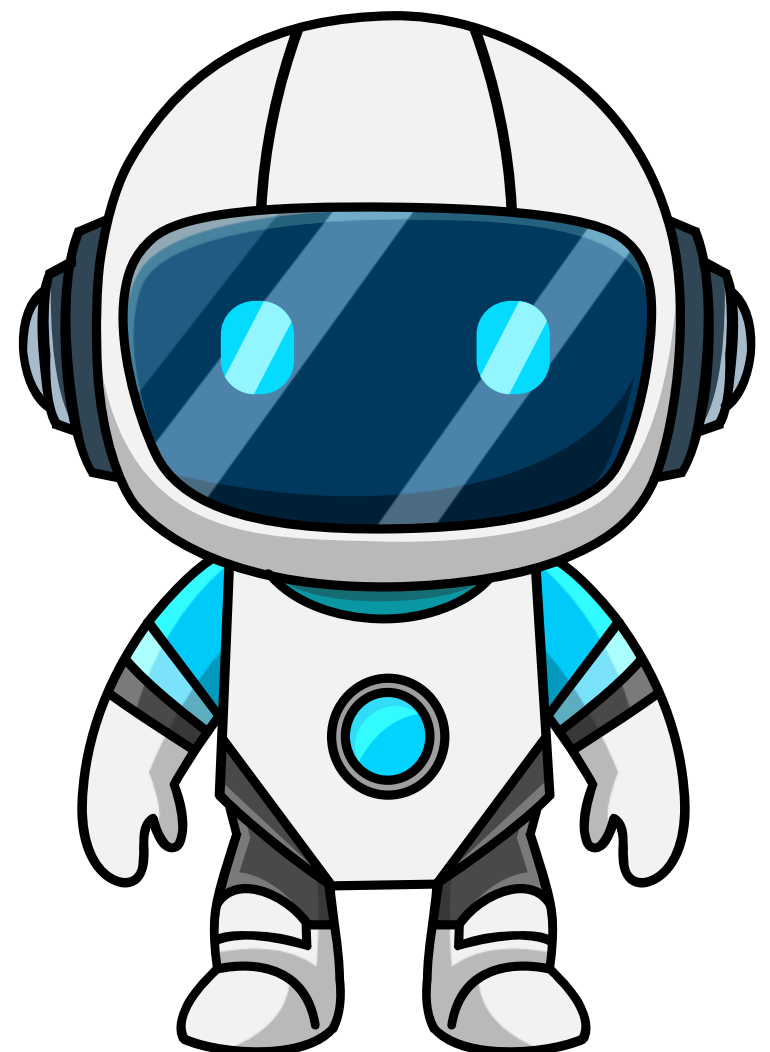
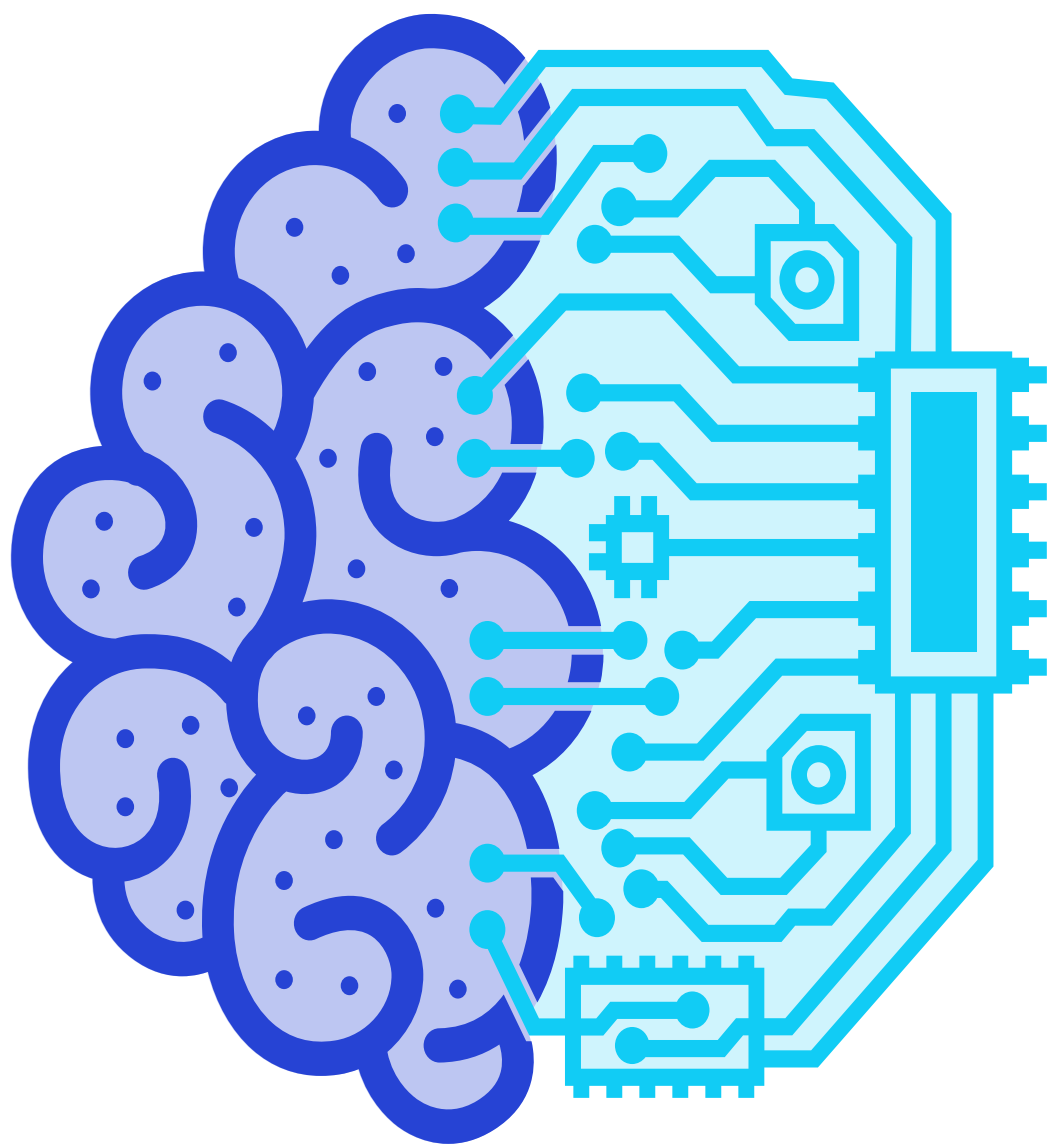
Session Duration: 60–90 Minutes

Target Group: Class 4–12 Students



Month 1 – Robotics Foundations

- **Introduction to Robotics and Types of Robots.**
- **Robot Components: Sensors, Controllers, Actuators.**
Mechanical Parts: Motors, Wheels, Gears.
- **Programming Basics: Sequence, Loops, If/Else.**
- **Motor Control and Sensor Integration.**
- **Mini Project: Obstacle Avoiding Robot.**



Week 1 – Introduction to Robotics

Class 1: Intro to Robotics + Types of Robots

Class 2: Robot Components (Sensors, Controllers, Actuators) + Mechanical Parts (Motors, Wheels, Gears)

Class 3: Build Basic Robot Chassis

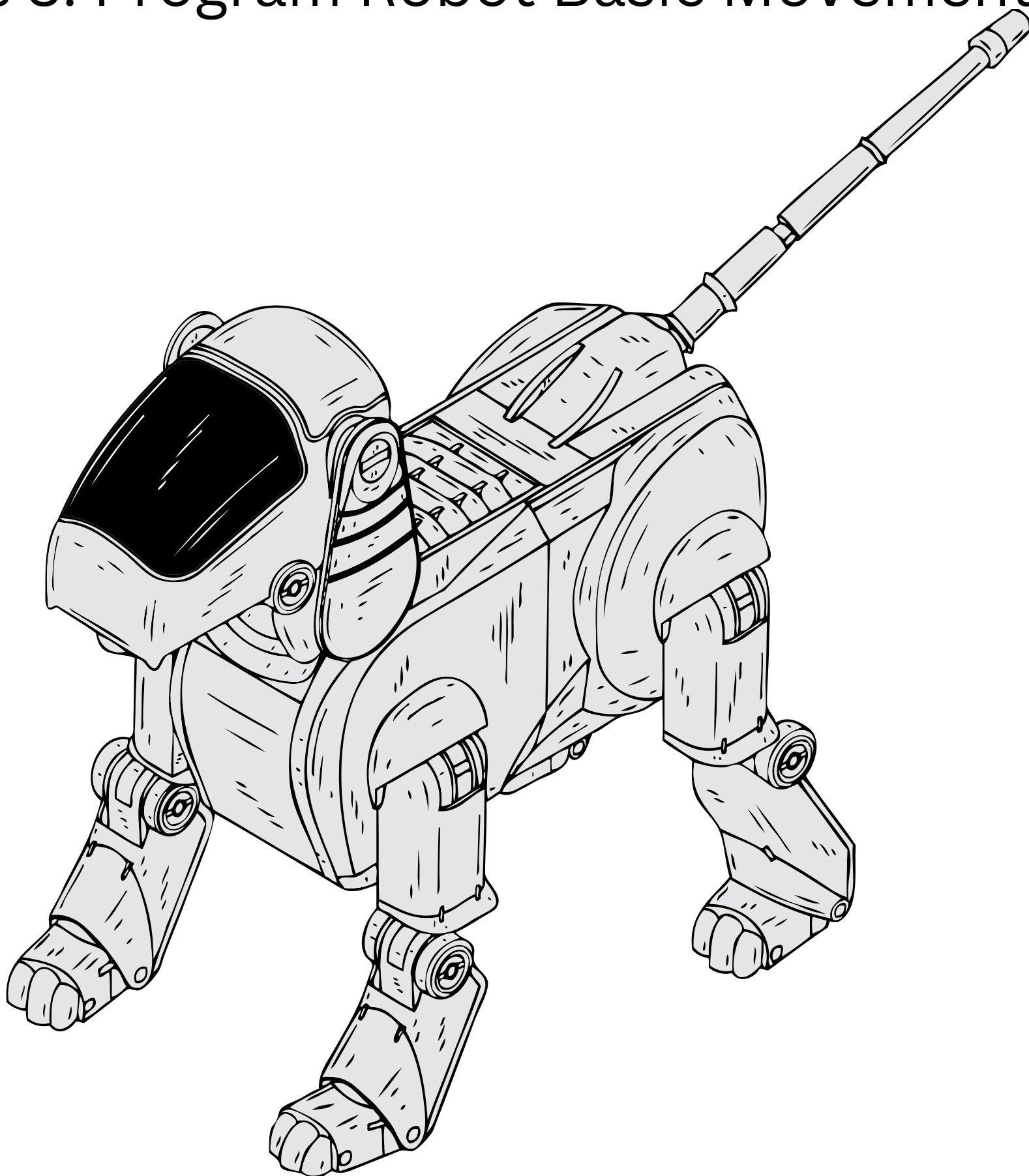


Week 2 – Programming Fundamentals

Class 1: Coding Logic + Sequence

Class 2: Loops + Conditions + Arduino / Block Coding

Class 3: Program Robot Basic Movement



Week 3 – Sensors and Motor Control

Class 1: DC Motor + Motor Driver

Class 2: Ultrasonic Sensor Working

Class 3: Sensor + Motor Integration

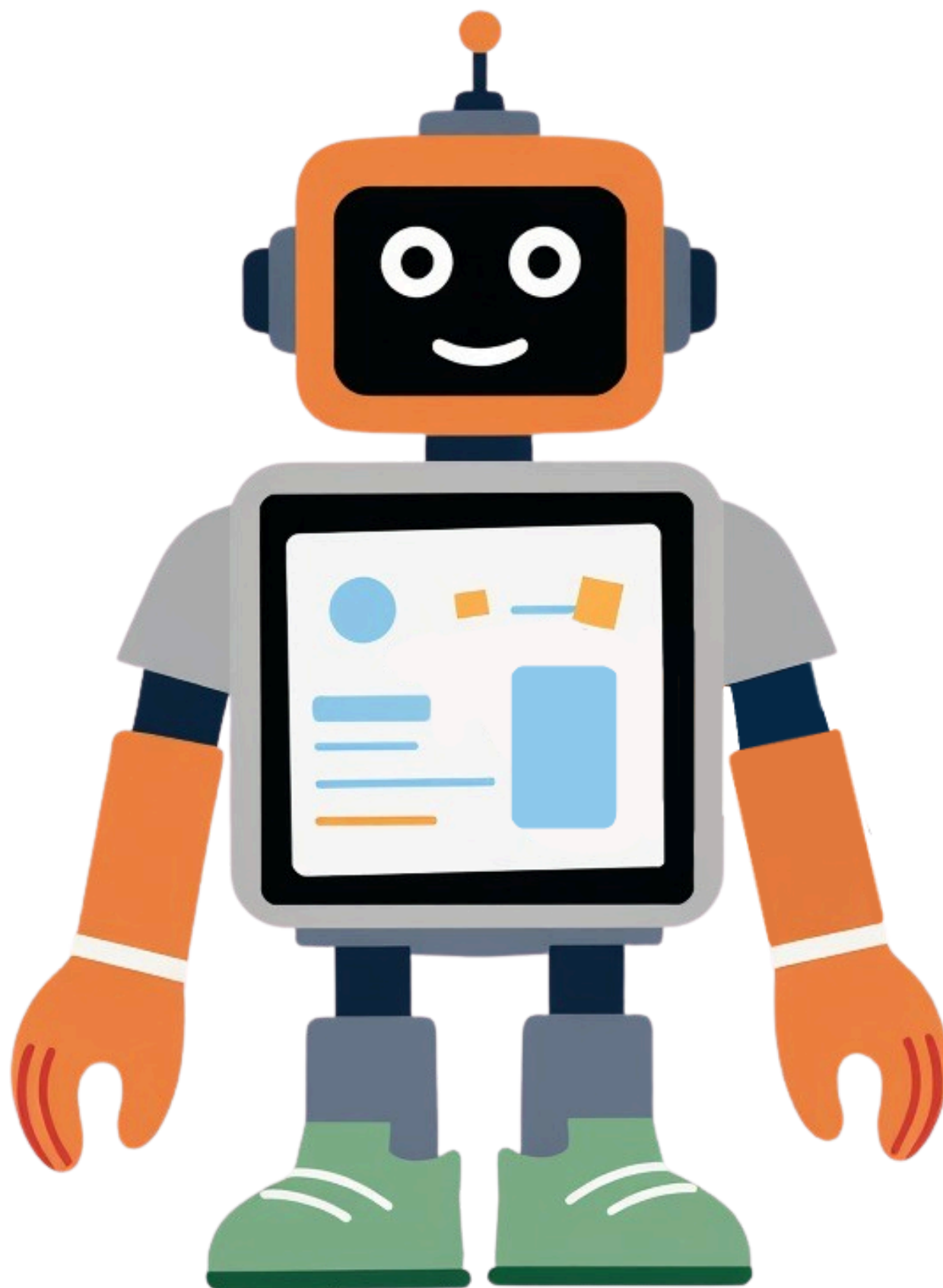


Week 4 – Electronics and Mini Project

Class 1: Voltage + Current + Circuits

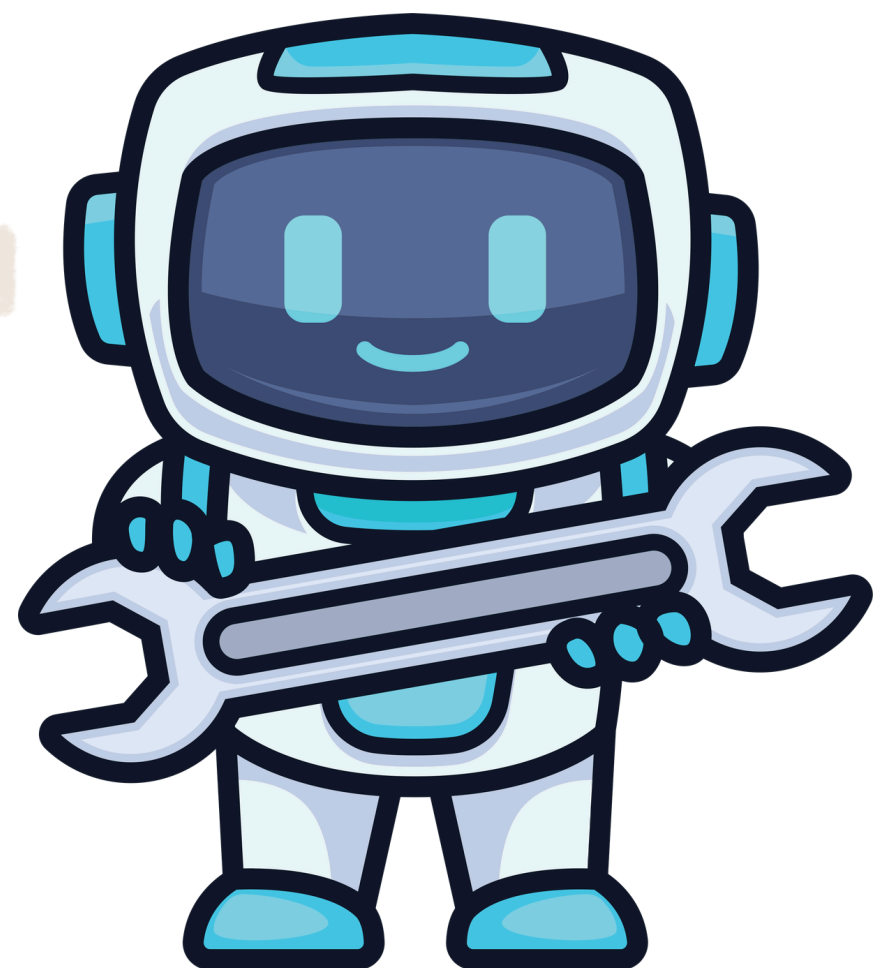
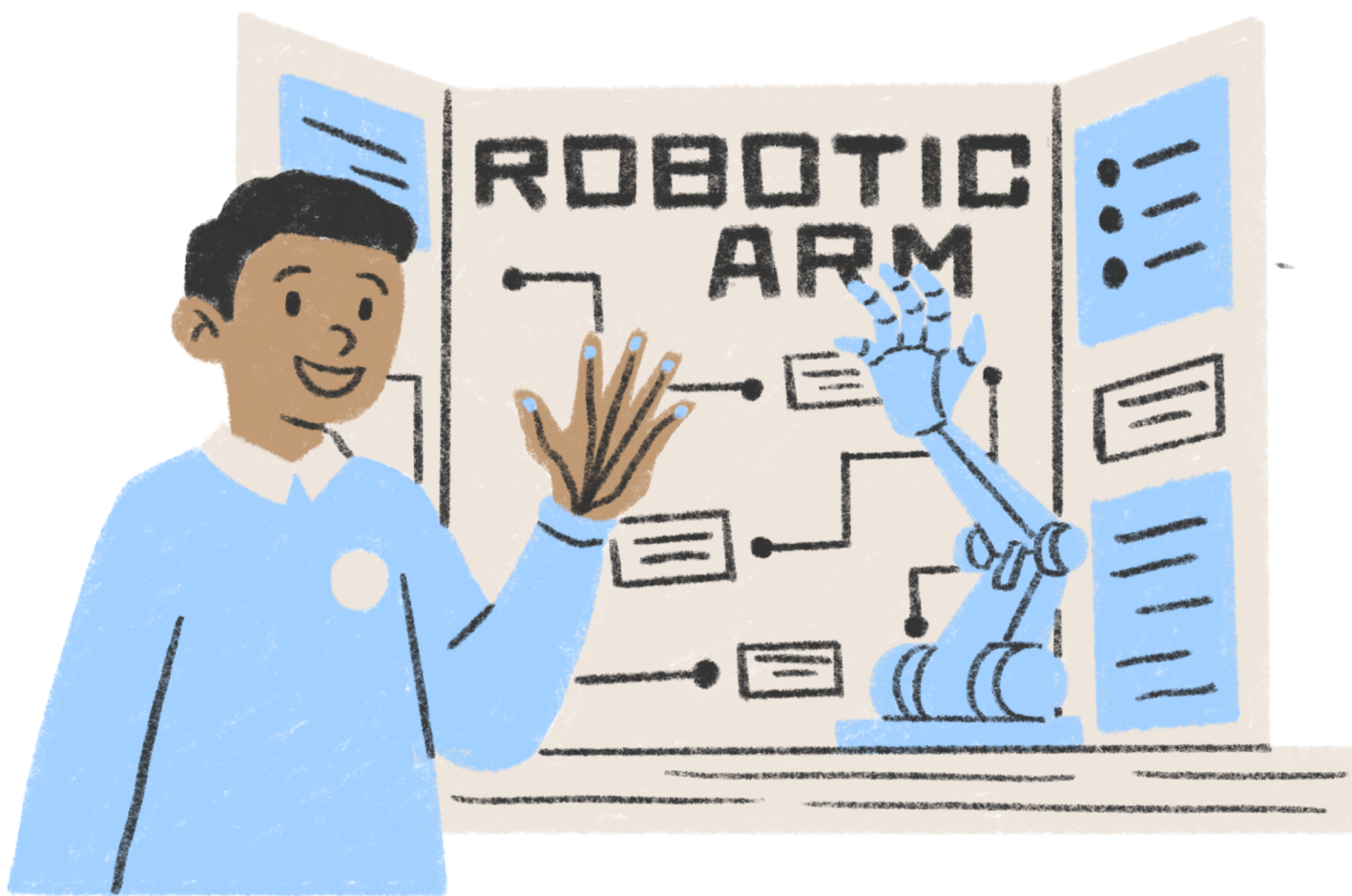
Class 2: Breadboard Practical + Debugging

Class 3: Mini Project – Obstacle Avoiding Robot



Month 2 – Intermediate Robotics

- **Basic Electronics: Voltage, Current, Circuits.**
- **Arduino Programming and Code Uploading.**
- **LED and Buzzer Projects.**
- **Motor Speed Control using PWM.**
- **Line Following Robot.**
- **Maze Solving Robot (Mid-Term Project).**

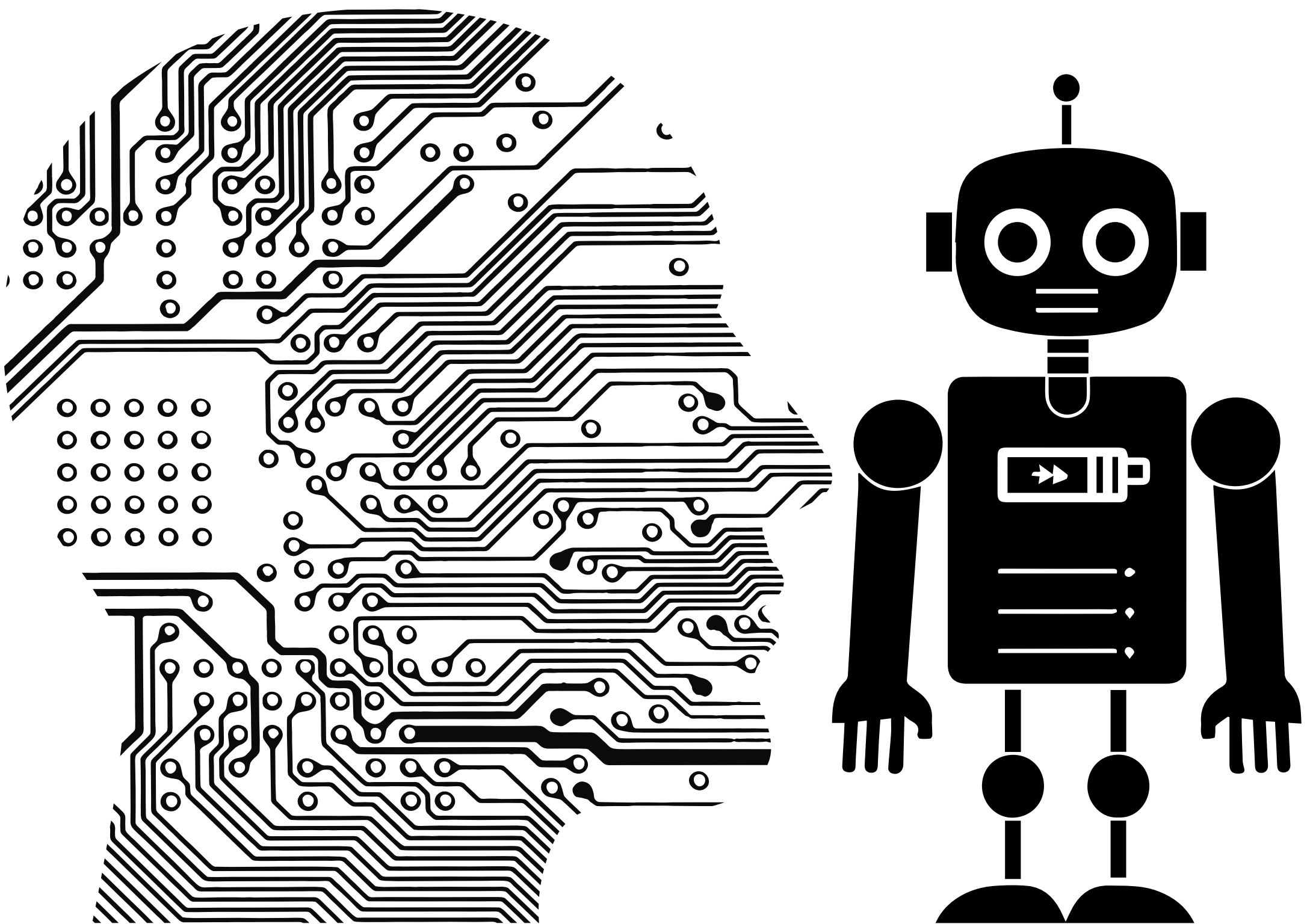


Week 5 – Arduino and Circuit Programming

Class 1: Arduino Code Uploading + Basics

Class 2: LED Project + Buzzer Project

Class 3: PWM Motor Speed Control + Sensor Data Reading

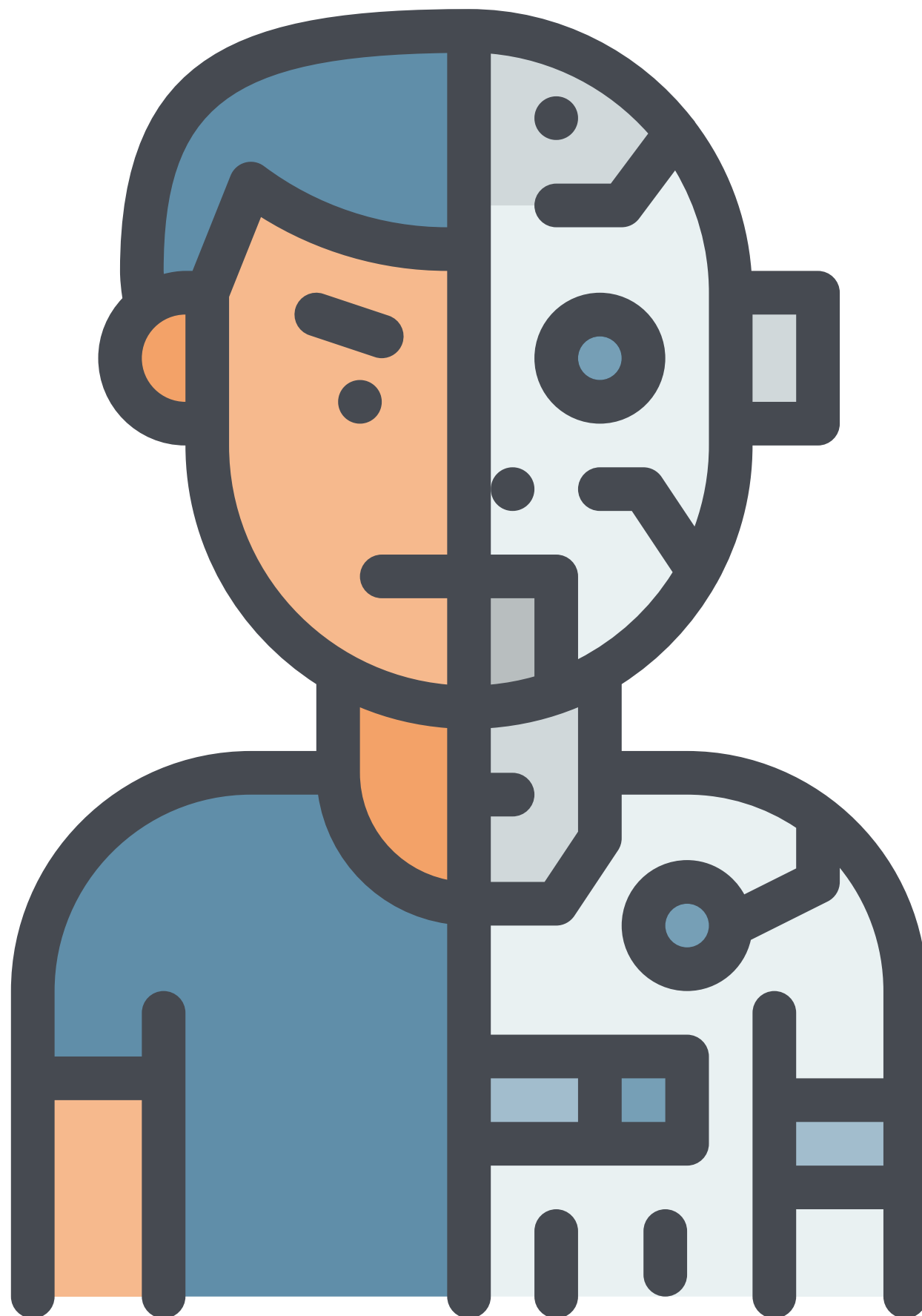


Week 6 – Line Following Robot

Class 1: IR Sensor Theory + Calibration

Class 2: Line Following Coding

Class 3: Testing + Debugging (Line Follower)

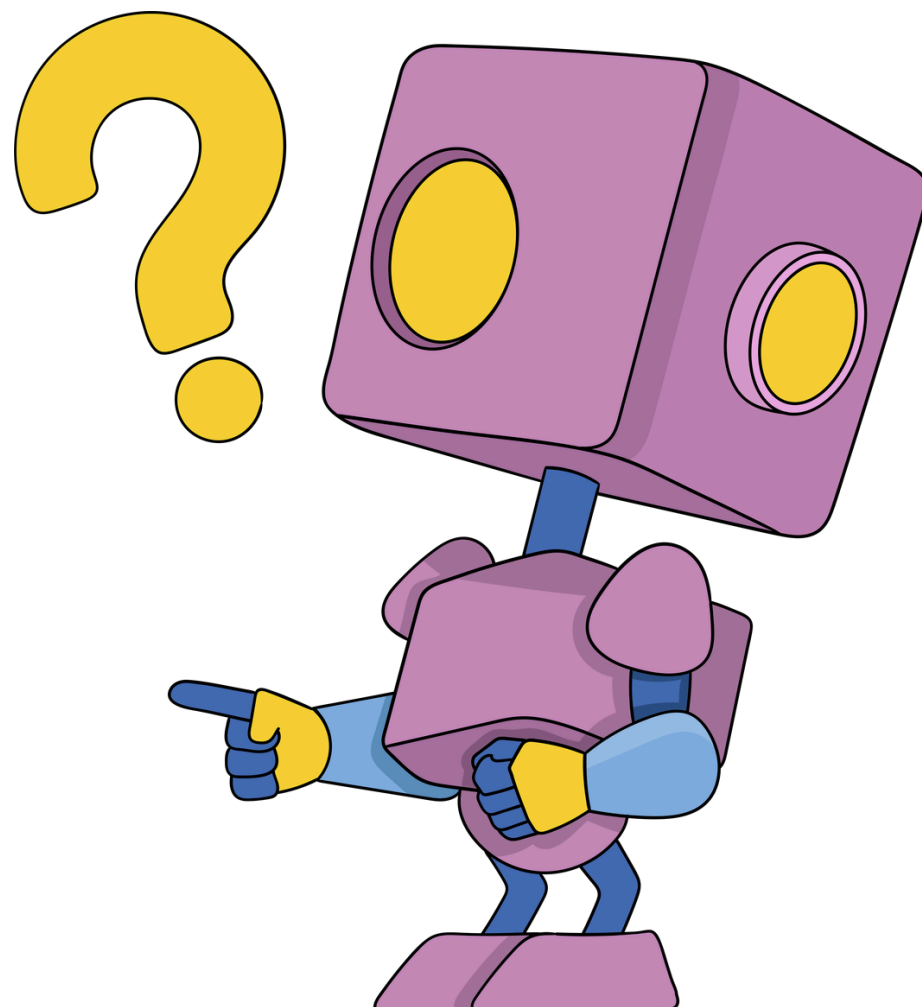


Week 7 – Advanced Components

Class 1: Servo Motor Working + Multi-Sensor Integration

Class 2: Robot Stability + Balance

Class 3: Challenge Task Implementation



Week 8 – Mid-Term Project

Class 1: Maze Solving Logic

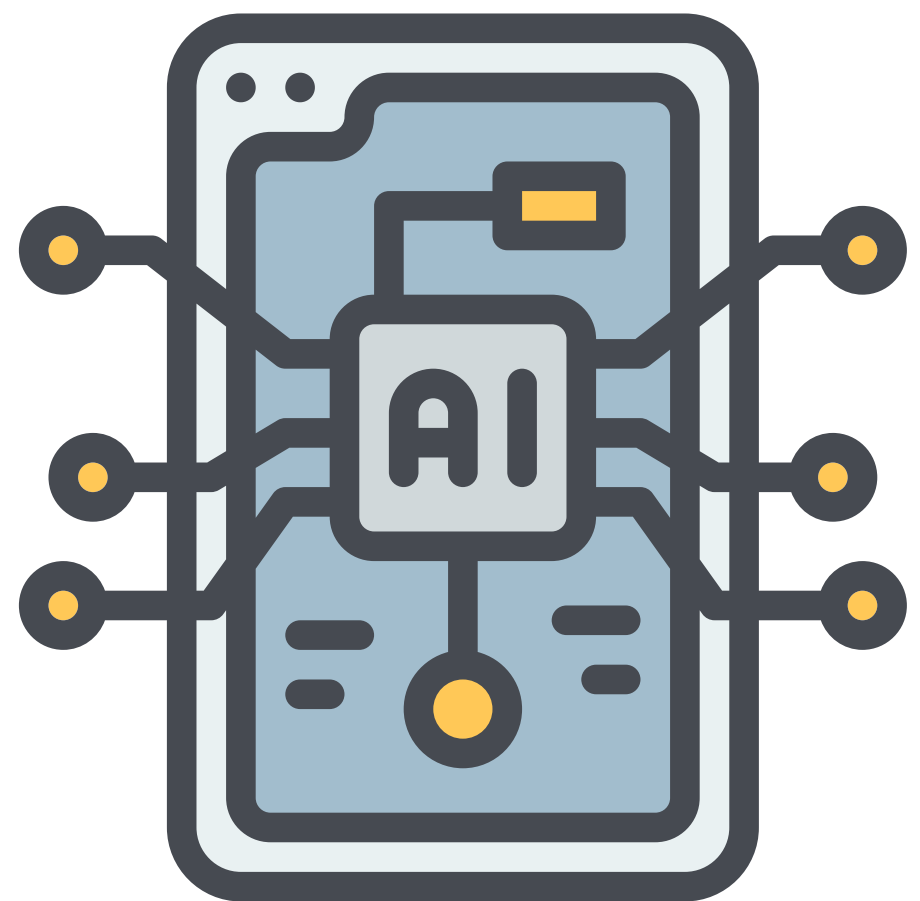
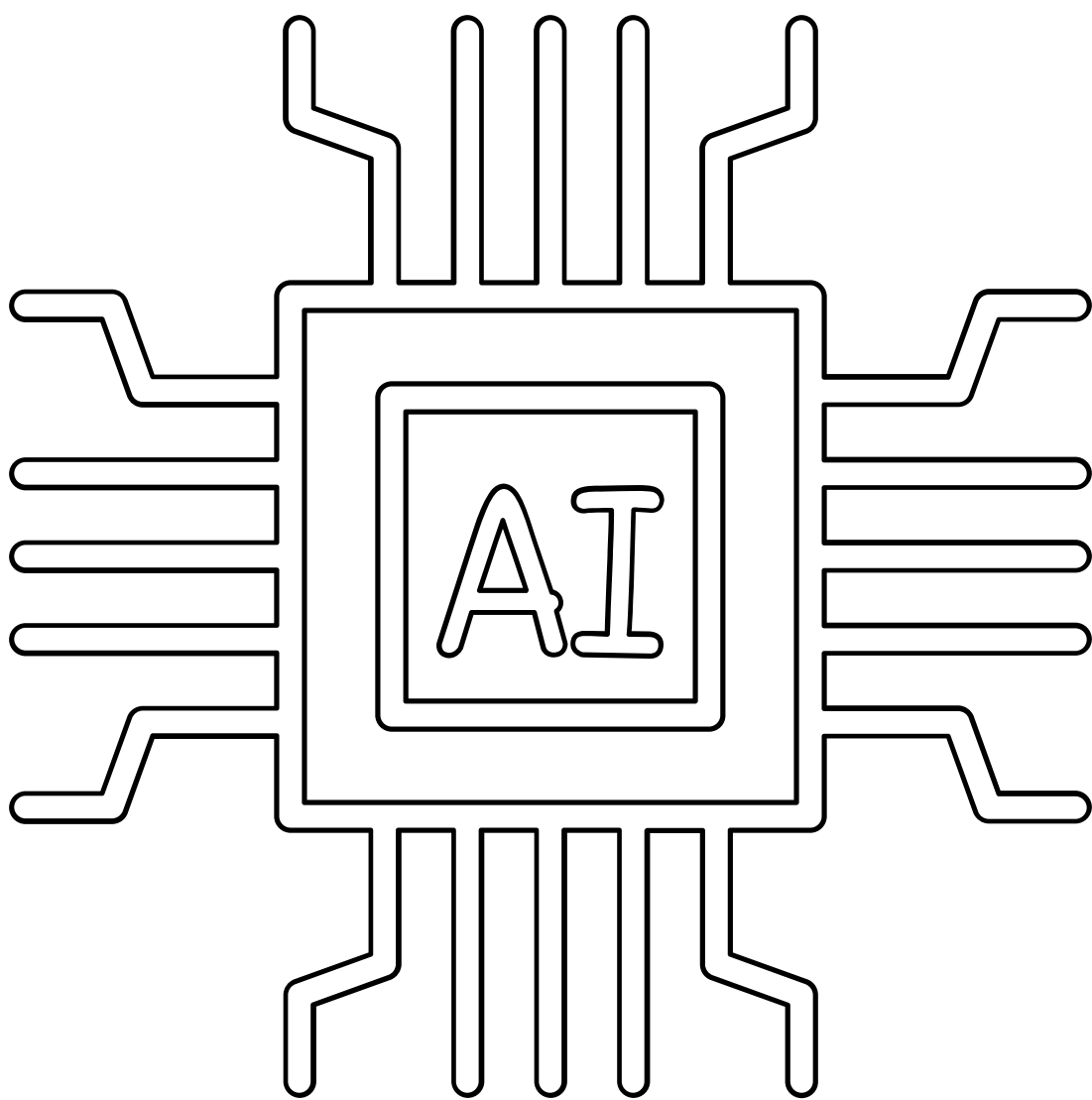
Class 2: Robot Assembly + Coding + Optimization

Class 3: Mid-Term Project Evaluation



Month 3 – Advanced Robotics & AI Basics

- Bluetooth Module and Mobile Control.
- Wireless Robot Communication.
- Smart Automation Concepts.
- Introduction to Artificial Intelligence in Robotics,.
- Capstone Project Development.
- Final Presentation and Certification.



Week 9 – Wireless Communication

Class 1: Bluetooth Module Introduction

Class 2: Mobile Control Setup

Class 3: Remote Navigation Robot + Testing



Week 10 – Smart Automation Systems

Class 1: Introduction to IoT

Class 2: Automation Logic Design

Class 3: Smart System Integration



Week 11 – AI Basics in Robotics

Class 1: What is AI + Automation vs AI

Class 2: Basic Decision-Making Logic

Class 3: Smart Project Planning

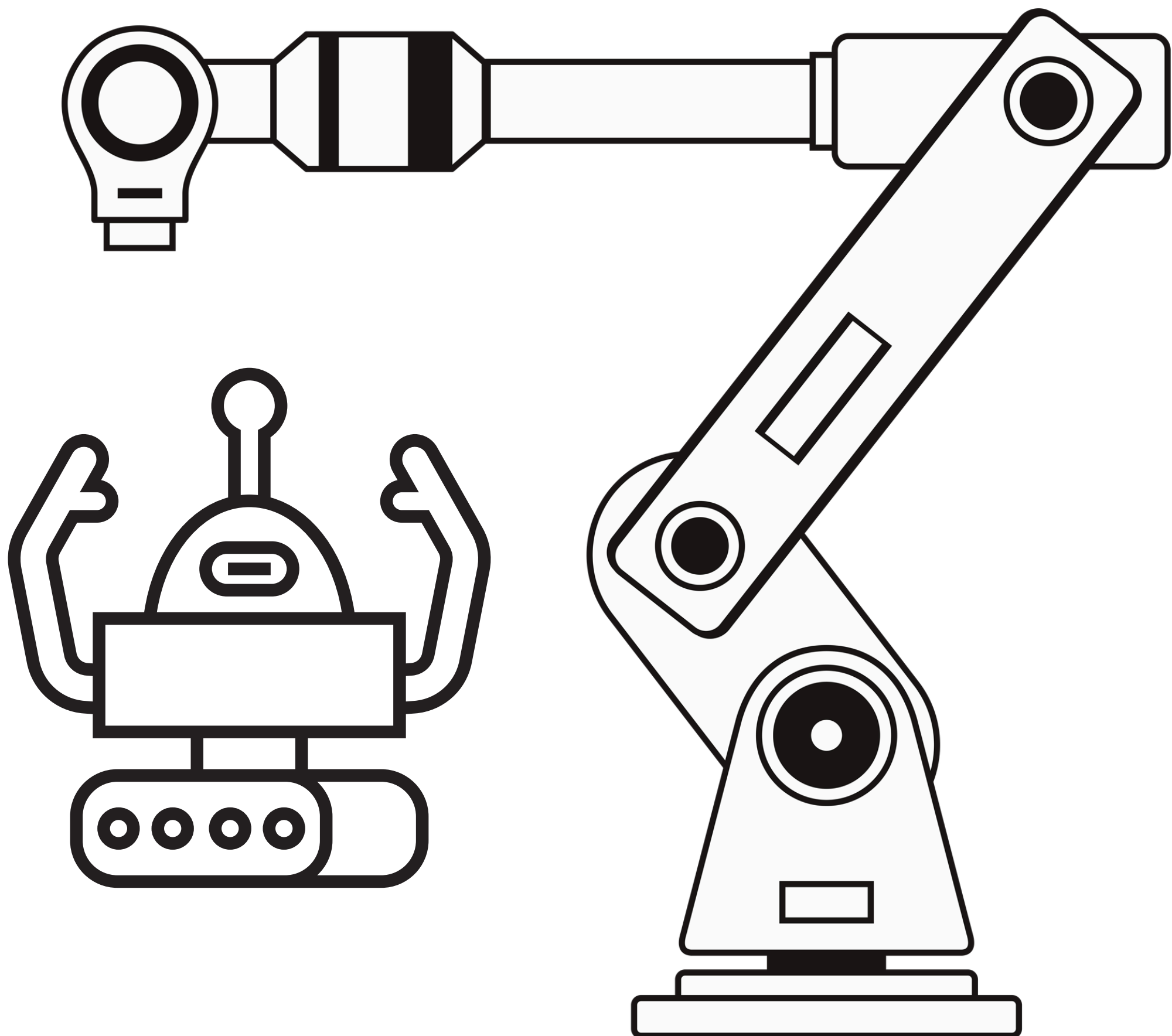


Week 12 – Final Capstone Project

Class 1: Project Planning + Design

Class 2: Robot Building + Coding + Testing

Class 3: Final Presentation + Certification



THANKS
Y'ALL



+91- 7983020261

