

LEARNING



Rock, Paper, Scissors Game



Reaction Game

Concept Covered

Algorithm, Extension Libraries, Variables and data types, Flow chart



Radio Messaging Device



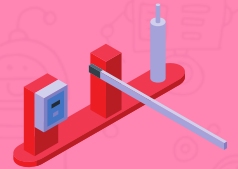
DPDT Car

Concept Covered

Radio Communication, Different kind of switches for control of a two wheel drive



Obstacle AVOIDER



Parking Counter

Concept Covered

Modification of a function containing different parameters, Local vs Global Variables

START



Month 1

Month 2

Month 3

Month 4

Month 5

Month 6

Month 7

Concept Covered

Introduction to block programming, Animation, Sensors, Conditions



Guitar



Automatic Street Lights

Concept Covered

Interfacing of Servo Motor with Microbit, Controlling RGB LED strip based on input from sensors



Clap Lamp



Password Protected Safe

Concept Covered

Using functions in a program, Application of Motor Driver



Height Measuring Device



Gesture Control Car

Concept Covered

Using arrays in a program, Application of Ultrasonic sensor




Line Follower




DIY Project

ROADMAP

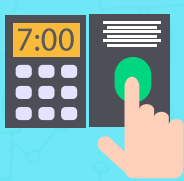


Serial Output of External sensors




Step Counter

Concept Covered
Monitoring the serial output of inbuilt and external sensors. Data Logging.



Attendance System



Face ID Lock

Concept Covered
Integrating AI with microcontrollers, Application of image detection



Innovation Project

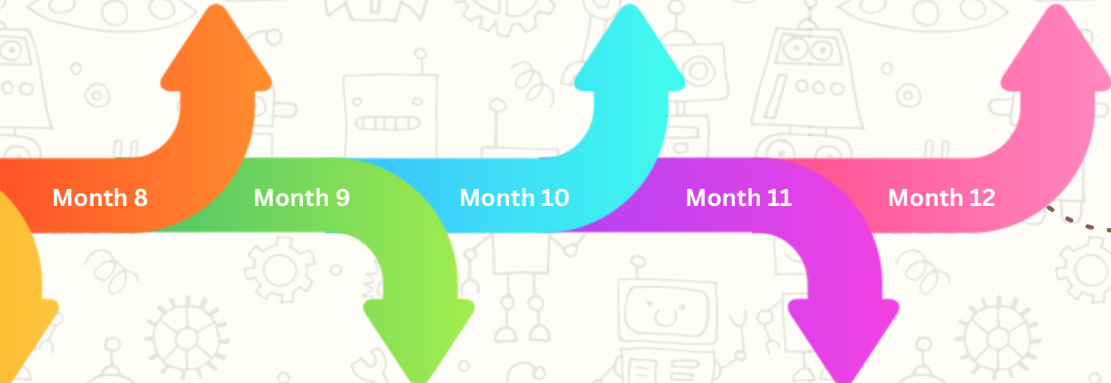


Trip/Lab Visit

Concept Covered
Student will create an Innovation Project. They will present their idea and working of the project.



Let's Innovate!



Concept Covered
...s and lists in a application of ... and IR sensors.

ollower

project

Concept Covered
Artificial Intelligence. Training AI models to detect images, gestures and sound.




Robo Soccer Competition

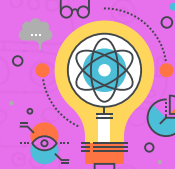


AI - Image and Sound detection

Concept Covered
Students will be divided in teams. Each team will work on incorporating various features of an automation system



Automation Project



DIY Project

Milestones:

- **3 Month: Basic Programmer**
- **6 Month: Robotics Programmer**
- **12 months: Creator**

Features:

- **Individual attention throughout the program**
- **Project based Real Life Application Focused Learning**
- **Concept Application in day to day life**