

IOT - Curriculum

Sl.No	Topic
1	Introduction to course
1.1	Brief Introduction to IoT
1.2	IoT Architecture
1.3	Embedded System
1.4	Controller & Processor
2	Creating account on Tinkercad
2.1	Basic of Arduino
2.2	LED
2.3	Led blinking.assignment1
3	Blinking assignment Solution
3.1	Serial communication
3.2	For loop
3.3	User Input
3.4	Controlling With User Input
3.5	Pushbutton LED
4	Introduction to PWM
4.1	GPIO
4.2	LED.Forward.voltage
4.3	Potentiometer
4.4	String Input Assignment solution
5	Potentiometer mapping Assignment Solution
5.1	Concept of RGB
5.2	Understanding breadboard
5.3	RGB project
5.4	Sensor Basic & Ultrasonic sensor
5.5	Ultrasonic sensor working
5.6	Temperature Sensor Assignment
5.7	Solution Temperature Sensor
5.8	PIR Sensor

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Sl.No	Topic
6	Introduction to Robotics
6.1	DC motor & L293D
6.2	Command to Motor
6.3	Solution Manual command Assignment
6.4	Motor
6.5	Servo motor
7	Remote Control robot
7.1	Obstacle Avoidance robot
7.2	Obstacle Avoidance robot continue
7.3	Speed control of motor
8	Introduction.To.IoT
8.1	Component of IoT
8.2	Selection.of.IoT.Board
8.3	Case.study.on.IoT.Product
9	Introduction.To.Thinkspeak
9.1	Thinkspeak.HTTP
9.2	LED.blinking
9.3	IR.Sensor
9.4	ultrasonic.Sensor
9.5	Air.quality.Sensor
9.6	Soil.moisture.sensor
9.7	DHT11.sensor.Serial.monitor
10	Introduction.To.MIT.App.Inventor
10.1	Speech.To.Text.App
10.2	IoT.App

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Sl.No	Topic
12	Smart.Home.automation
12.1	Adafruit.dashboard
12.2	Relay.application
12.3	Mosquitto.process
12.4	Mosquitto.project
12.5	Mosquitto.Authentication
12.6	Mosquitto.Authentication.continued
12.7	Adafruit_MQTT
13	Introduction.To.Python.programming
13.1	Python programming.1
13.2	Python.programming
13.3	Pycharm.installation
14	Introduction.To.Socket.Programming
14.1	Server.Client.Implementation
14.2	Socket.Chat.Room
14.3	UART&I2C&SPI
15	World.Map.Covid.19.Dashboard
15.1	World.Map.Covid.19.Dashboard.final

PROJECT	
1	Automatic Room Temperature Controller
2	Voice Control Home Automation
3	Smart Building using BLYNK
4	Obstacle Avoidance Robot using Ultrasonic Sensor
5	IoT based Smart Factory System