MAKXENIA
PRODUCT SCHOOL

Product Development Project List

Sr.no	Project Name	Description
1	Home automation system using IoT	Use IoT with Relay module and ESP8266 with Arduino to control home appliances from custom made website using HTTP GET Protocol and make it available on internet to control it remotely.
2	Website hosting and building	Learn how the websites are built and made available online. Get a hosting plan, build a custom website and publish it to web.
3	Thingspeak Weather Monitoring System	Use IoT with DHT11 and ESP8266 with Arduino to make an online weather station. Monitor temperature and humidity remotely by publishing the data to web-servers using HTTP POST and monitor it graphically. Also create a custom website to save the live data.
4	ESP8266 Wi-FI Interfacing	Learn how ESP8266 Wi-Fi Module works. Communicate and control ESP8266 with AT commands using Arduino. Connect to Wifi, Get IP address.
5	Wall Follower Robot	Robot that will keep following the wall and navigate with the wall as the wall bends. Autonomous Close loop control Wall Follower robot using TSOP Proximity Sensor. Develop Wall Following Algorithm and Develop firmware, then test, debug and deploy the robot.

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6	Obstacle Avoider Robot	Robot that will keep moving around and will detect and obstacle and avoid it. Autonomous close loop control Algorithm and Develop firmware, then test, debug and deploy the robot.
7	Edge Avoider Robot	Robot that will keep moving on a table but won't fall. It will detect the edges and avoid it to safely navigate along the table. Autonomous close loop Controlled Edge Avoiding algorithm.
8	White Line Follower Robot	Autonomous robot that detects and follows white line embedded on a surface with the help of IR sensor. Develop Line Following Algorithm and develop firmware, then test, debug and deploy the robot.
9	Black Line Follower Robot	Autonomous robot that detects and follows black line embedded on a surface with the help of IR sensor. Develop Line Following Algorithm and develop firmware, then test, debug and deploy the robot.
10	Android App controlled Robot	Robot that is controlled using the Android application where you give command through the application and Arduino would perform the necessary actions accordingly.
11	Keyboard controlled Robot	Robot that is controlled using the keyboard where you type the command in the serial monitor and Arduino would perform the necessary action accordingly.

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12	Differential Drive	Learn how a BO motor works when different logics are applied, moving forward and backward and how to turn left and right.
13	Motor Control using C code	Implementing an embedded C code to control the BO motors' movement (Forward, Backward, Left, Right and Stop).
14	Keyboard controlled LEDs	LEDs that are controlled usng the keyboard where you type the command in the serial monitor and Arduino would perform the necessary action accordingly.
15	Switch to LED	Using Arduino to read switch status and Control LEDs.
16	Switch to serial	LEDs that are controlled using the serial monitor where you type the command and Arduino would perform the necessary action accordingly.
17	LED Blink using code	Blinking the LED using the inbuilt Arduino code.
18	PCB Designing, printing and soldering	Designing a circuit for 555 timer astable multivibrator on EAGLE CAD software, printing the same on a copper clad and then etching the copper clad and at last soldering the components in their respective places.

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19	Soldering Automatic Night Light on Dotted PCB	Implementing a circuit for Automatic Night Light using LM358 on a dotted PCB and solder the components.
20	Automatic Night Light	Conceptualising the circuit and implementing it on breadboard.