

LONEX

Arduino Masterclass

Proposal

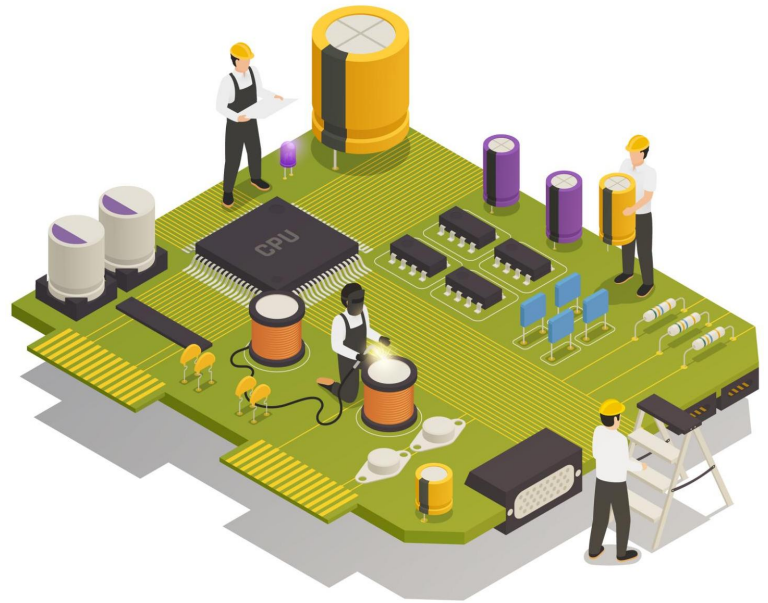
CREATIVITY is thinking up New Things

INNOVATION is doing New Things

" Our goal is to empower people by giving them the evidence they need to make decisions about technology in education "

Mission and Vision

Our goal is to empower people by giving them the evidence they need to make decisions about technology in education



Lonex

Lonex, was founded in the year 2012 with a tiny workforce and manpower. The aim was to innovate and manufacture reliable power conditioning & IoT products. Now we have grown tremendously and increasing our reach worldwide.

we consider every order received from our customers whether big or small as opportunity to provide them with reliable and best performing products which will help them achieve maximum Productivity and efficiency.

Techiqbal

TECHIQBAL is an E-learning platform offering students a holistic learning experience helping them become Industry ready.

Educational technology is the combined use of computer hardware, software, and educational theory and practice to facilitate learning. When referred to with its abbreviation, edtech, it is often referring to the industry of companies that create educational technology.



ARDUINO SYLLABUS

01 Introduction to Embedded System

02 Arduino Introduction

03 Why Arduino?

04 Application of Arduino

05 Types of Arduino

06 Application of Arduino

07 Introduction to Arduino Board

08 Features of Arduino

- a) Difference between Microcontroller & Microprocessor
- b) Flash Ram, SRAM, EEPROM
- c) Difference between EEPROM & Flash

09 Arduino Board Description

- Atmega 328P
- Atmega 16u2
- Arduino pin description
- Digital Pin
- Analog pin
- PWM
- Power supply pin
- IOREF
- AVR
- I2C
- UART
- SPI
- Interrupt
- ICSP



ARDUINO SYLLABUS

09 Arduino Board Description

- Power supply
- Diode, capacitor, Resistor & transistor
- Crystal oscillator
- ATmega328p resonator
- Pull-up & Pull-down Resistor
- Voltage Regulator
- Op-amp comparator
- PTC Resettable Fuse
- MOSFET
- ESD/surge Protection Varistors
- Ferrite bead

10 Introduction to Arduino IDE

11 Arduino programming

- Variables
- Data Types
- Operators
- Array
- If else
- Nested If
- Loop
- Function
- Serial Monitor

12 Introduction to tinkercad

13 Introduction to proteus



ARDUINO SYLLABUS

- 14** led blink
- 15** 8 Led blink
- 16** Reading the Button input
- 17** **Project 1:** Build a traffic light system
- 18** Glowing the led using Button Input without if else
- 19** Working of Potentiometer
- 20** Reading analog value using Potentiometer
- 21** Controlling the brightness using PWM pins
- 22** Glowing the led using Button Input using if else
- 23** controlling 2 led using 2 button
- 24** LCD Interfacing with Arduino
- 25** Printing hello world! on LCD
- 26** Controlling 2 led using 2 button showing output in lcd



ARDUINO SYLLABUS

- 27 Sensors
- 28 Actuators
- 29 IR sensor interfacing with Arduino
- 30 **Project 2:** Count the no. Of person enter in the room and print on LCD
- 31 PIR sensor interfacing with Arduino
- 32 Relay & its working
- 33 Relay Module
- 34 **Project 3:** Automatic On/off light using PIR sensor with Ac Power supply
- 35 LDR Sensor interfacing with Arduino
- 36 **Project 4:** Automatic On/off light on night/day respectively using LDR sensor With AC Power supply
- 37 DHT-11 Temperature and Humidity Sensor
- 38 **Project 5:** Smart farming using Moisture Sensor
- 39 Ultrasonic Sensor interfacing with Arduino
- 40 Using Servo with Arduino
- 40 **Project 6:** Smart Home Automation

Glimps & Review



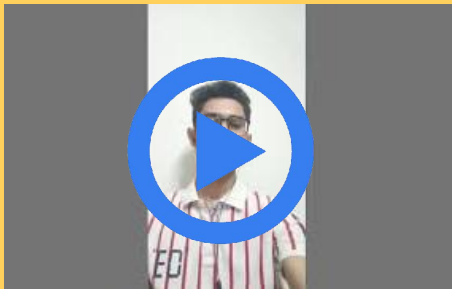
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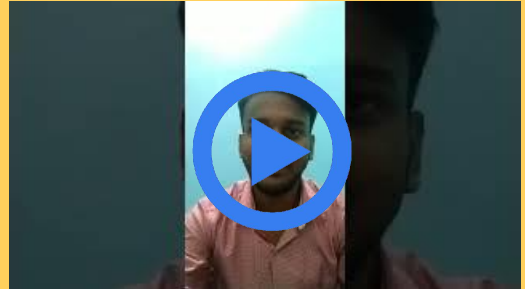
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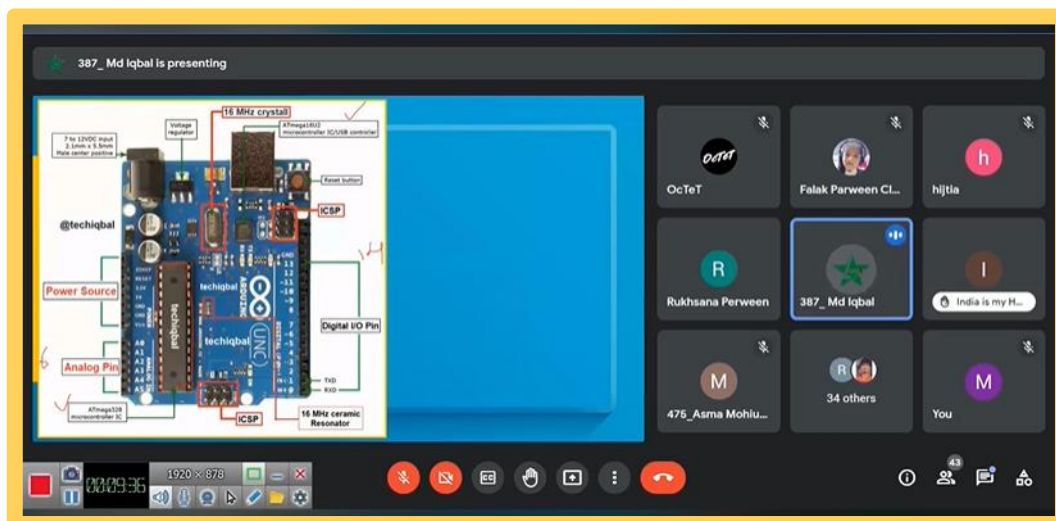
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END OF PROPOSAL

THANK YOU

We look forward to getting in touch with you Soon

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" The idea is not to live forever but to create something that will "