

# Learn Arduino in 45 Days

## Chapter 1.

Getting started with Arduino.

- Introduction to Arduino.
- Setup your computer to use Arduino.
- Understanding electronics elements – Resistors, capacitors, transistors, relays etc.

## Chapter 2.

LEDs.

- Blinking of LEDs.
- Fading of LED.
- Circling of LEDs. ( FOR loop)
- Blinking of EVEN and ODD states of LEDs.
- LED dice.
- Traffic light system. And many more projects

## Chapter 3.

Serial monitoring.

- Controlling of LEDs from your computer.
- Reading analog and digital inputs.

## Chapter 4.

Digital inputs.

- Controlling LED using push button.
- Switching ON a relay.

## Chapter 5.

Analog inputs.

- Controlling of LEDs using a joystick.

- Controlling a DC motor, PWM.
- Changing the brightness of LEDs using potentiometers.

## Chapter 6.

LCD displays.

- Wiring of LCD screen with Arduino.
- Displaying a message in LCD screen.
- Screen navigation on LCD.
- Turn ON a LED by entering the password.
- Knowing the status of the LED.
- Scrolling of text.
- Displaying room temperature using LM 35 temperature sensor.

## Chapter 7.

Seven segment display.

- Simple automatic countdown and count up. (FOR loop)
- Increment or decrement a number by using push button.

## Chapter 8.

Servo motors.

- Controlling Servo Motor with Joystick
- Indexing of Servo motor
- Direction control of Servo Motor
- Servo Motor based Projects
- Synchronizing 2 Servo Motors

Following FREE Softwares will be given to students who enroll for Arduino Training:

- Arduino Programming Software
- Arduino Wiring Software
- Arduino Simulator
- Arduino Helpbooks