

Experiments using Proteus

1. Blinking of LED using 8051 microcontroller using proteus
2. LED toggle using 8051 using proteus
3. LED chaser using 8051 using proteus
4. Fade in fade out of LED using 8051 using proteus
5. Generation of square wave using proteus
6. Generation of triangular wave using proteus
7. Anticlockwise rotation of stepper motor using 8051 using proteus
8. Clockwise rotation of stepper motor using 8051 using proteus
9. Digital clock using proteus
10. Interfacing of relay and bulb with 8051 using proteus
11. Interfacing of relay and led with 8051 using proteus
12. 7 segment display using 8051 using proteus
13. Digital thermometer using proteus

Experiment using LPC 2148 Development Kit

14. Introduction to the LPC 2148 Development kit and Keil Software
15. LED flashing using LPC 2148 kit
16. Accessing an internal ADC and display the binary output in LEDs in LPC 2148 kit
17. Display a number in seven segment LED in LPC 2148 kit
 - a. Decimal Numbers
 - b. Hexa-Decimal Numbers
 - c. Alphabets
18. Square waveform generation with 10-bit DAC using LPC2148 kit
19. Triangular waveform generation with 10-bit DAC using LPC kit
20. Arithmetic operations using LPC 2148 kit
21. Serial transmission and reception using on-chip UART in LPC 2148 kit

Experiments using Arduino Uno Development Kit

22. Blinking of an LED using Arduino Uno
23. Fading of an LED using Arduino Uno
24. Interfacing a water-level sensor with Arduino Uno
25. Interfacing an ultrasonic sensor with Arduino Uno
26. MQ-6 gas sensor interfacing with Arduino Uno

27. RFID module interfacing with Arduino Uno
28. Interfacing a buzzer with Arduino Uno
29. LED chaser with Arduino Uno
30. Study of PCB printing using Eagle CAD