Week 1:

- Introduction to basic electronics:
    - Atoms: Protons, Neutrons and Electrons
    - Conductors and Insulators
    - Voltage, Current, Resistance, Watts.
    - Semiconductors
    - Neutral Charge Equilibrium
- Basic Components
    - Resistors
    - Capacitors
    - Diodes
    - Transistors
    - Integrated Circuits
    - Potentiometers
    - LEDs
    - Switches
    - Breadboards
    - Connectors
- Introduction to Arduino
    - Microcontroller
    - IDE
    - C++
- Lesson 1: LED blink – Built in LED

Week 2:

- Lesson 2: Blink LED External
- Lesson 3: Introduction to Ultrasonic Sensor and Active Buzzer
    - Mini project: Beep when an object nears the sensor
    - Advanced: Alternate beeping and LED

Week 3:

- Lesson 4: Introduction to LCD1602
    - Write different words at different location
    - Modify lesson 3 code to display when someone comes near ultrasonic sensor

Week 4:

- Lesson 5: Introduction to DHT11 Temperature and Humidity Module
    - Show temperature *& humidity in serial port
    - Show temperature and humidity in LCD

Week 5:

- Lesson 6: Introduction to IR receiver and Remote
    - Introduction to passive buzzer
    - Use remote to play different buzzer frequencies
    - Use serial port to see all the buttons pressed

Week 6:

- Lesson 7: Introduction to Tilt switch
    - Show tilt with LED
    - Show tilt with buzzer

Week 7:

- Lesson 8: Introduction to digit displays (1 digit and 4 digit)
    - Use remote to press a key and display on digit displays
    - Use LED to show non numeric key press

Week 8 , 9 and 10:

- Lesson 9: Introduction to Stepper Motor and Stepper Motor driver
    - Introduction to Joystick
    - Controlling stepper motor with Joystick
    - Introduction to Servo motor
    - Mini Project