

Session 1	<ol style="list-style-type: none"> 1. Mechanism of breadboard. 2. Parallel circuit vs. Series circuit. 3. LED , resistor, press button structure. 4. Traffic light connection 1. 5. Traffic light connection 2.
Session 2	<ol style="list-style-type: none"> 1. About Arduino. 2. Arduino Uno structure. 3. Data types of Arduino. 4. Application code vs. Firmware. 5. How to read the diagrams of connections. 6. Arduino IDE. 7. C++ language basics (int, float, char, void setup, void loop, high, low,....). 8. Simple HIGH LOW code. 9. Blink code. 10. Macro definition and variables.
Session 3	<ol style="list-style-type: none"> 1. Digital signal. 2. Digital sensors. 3. Analog signal. 4. Analog sensors. 5. Pulse-width modulate (PWM), “DAC”. 6. Connection of sensors with Arduino (GND, VCC, DATA). 7. Serial monitor. 8. LDR and potentiometer structure. 9. Bluetooth sensor module. 10. “Arduino Bluetooth control” app. 11. If .. else .. then loop. 12. Serial types in coding.
Session 4	<ol style="list-style-type: none"> 1. First project (Line follower robot): <ol style="list-style-type: none"> a. Motors (Robot wheels). b. Motor shield structure. c. Motors connection. d. IR Sensor Module. e. Whole code. 2. Second project (Car controlling by phone): <ol style="list-style-type: none"> a. Bluetooth SPP (Serial Port Protocol) module - HC-05 module. b. “Dabble – Bluetooth controller for Arduino & ESP32” app. c. Car code. 3. AF motor library.
Session 5	<ol style="list-style-type: none"> 1. Third project: <ol style="list-style-type: none"> a. Types of motors. b. Servo motor structure. c. Servo motor connection with Arduino. d. Servo motor connection with motor shield. e. Servo motor code. f. Ultrasonic module. g. Ultrasonic connection. h. Ultrasonic code.

	<ul style="list-style-type: none">i. Whole robot.2. Types of libraries.
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