

Projects:

1. Every 1 second, the operating mode is switched between the buzzer and the LED.
Buzzer – LED
2. When the LDR is highlighted, the buzzer is turned on.
Buzzer – LDR
3. At each push of a button, the color of the LED is switched between red, green and blue.
Push Button – RGB LED
4. The red LED turns on for 15 seconds, then the yellow LED for 2 seconds, then the buzzer for half a second, then the green LED for 10 seconds.
Buzzer – LED * 3
5. When we press a button connected to the Arduino, the distance is sensed and written on the LCD screen.
Push Button - Ultrasonic Sensor – LCD
6. Write the letters of your name on the dot ***LED*** matrix screen, letter by letter, and the letter is changed every 1 second.
Dot LED Matrix
7. Display of temperature and humidity on the LCD screen.
Dht11 - LCD
8. Display the distance on the LCD screen.
LCD – Ultrasonic Sensor
9. When an object approaches the sensor and the distance becomes less than 20 cm, the buzzer is triggered and a warning message is written on the LCD screen.
LCD - Ultrasonic Sensor – Buzzer
10. Writing the letters of your name on the matrix ***LED*** dot screen, in the form of a moving bar.
Dot LED Matrix
11. Writing the letters of your name on the LCD screen, in the form of a moving bar.
LCD
12. Designing a brick breaker game on the computer, and the base is moved in the game using a variable resistance connected to the Arduino.
Unity – Potentiometer
13. When sending the letter “L” to the Arduino from the phone using Bluetooth, we get from the Arduino the degree of illumination in the room as a percentage.
LDR - Bluetooth

14. When we send the letter “H” to the Arduino from the phone using Bluetooth, the Arduino sends us the degree of humidity in the room, and when we send the letter “T” the Arduino sends us the room temperature.
Dht11 - Bluetooth
15. When the room temperature becomes more than 40 degrees the buzzer is triggered.
Dht11 - Buzzer
16. Smart trash, when an object approaches the trash can, its lid is opened, and when the object moves away, the lid is closed again.
IR Sensor – Servo Motor
17. 17. The product display device, rotate a circular disk (we put the product on it) at a light speed using the motor step and change the color of the lighting on the product every 3 Seconds.
RGB - Step Motor
18. A piece turns right whenever an object approaches its front face.
Step Motor – IR Sensor
19. When sending No. 1 from the phone to the Arduino via Bluetooth, a bullet is fired in the game on the computer.
Unity – Bluetooth
20. Only when we press the button the presence of an object near will be sensed, and in the event of its presence, the buzzer will be turned on permanently until the object is far from the sensor.
IR Sensor – Push Button – Buzzer
21. When we press the first button, the LED is turned on and when we press it again, it is turned off. When we press the second button, the LED flashing process is accelerated, and when we press it again, the LED blinking process is slowed down (switching between two speeds only).
Push Button * 2 – LED
22. When we move the variable resistance while pressing the first button, the degree of red color is determined between 0 and 255, the second button is green and the third is blue.
Push Button*3 – RGB LED - Potentiometer
23. When we press the first button connected with the Arduino, the distance is sent from the distance sensor to the phone connected by Bluetooth, when we press the second button, the status of the IR sensor is sent to the phone.
IR Sensor – Ultrasonic Sensor – Push Button - Bluetooth
24. When sending any character from the computer to the Arduino via serial port, it is converted into symbols encoded in Morse code and displayed on the LCD screen.
LED
25. Open a carton + turn on the LED inside the box, when we send No. 1 to the Arduino from the phone and turn them off when we send No. 2.
Servo Motor - LED - Bluetooth

26. The buzzer is triggered when 1 is sent from the phone to the Arduino, then the Arduino sends a message to the phone asking it how many seconds we want the buzzer to stay working. (40 points)

Buzzer - Bluetooth

27. Requesting a password from the user on the computer via the serial (only when there is an object close to the sensor), and when the user writes "12345 " as a password, the green LED is turned on and the red LED is turned off.

LED - IR Sensor

28. When turning the variable resistance to the right, the temperature is written on the LCD screen, and when turning it to the left, the distance is written.

Ultrasonic Sensor - LCD - Dht11 - Potentiometer

29. Timer counts down for 1 minute. The counting starts when the button is pressed.

Push Button - LCD