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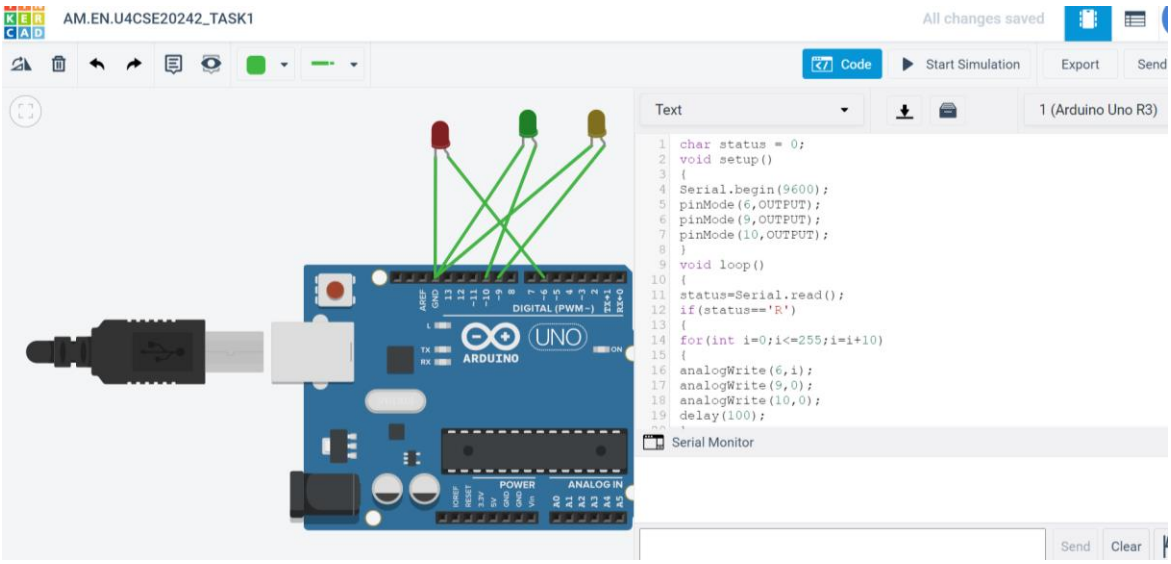
AM.EN.U4CSE20242

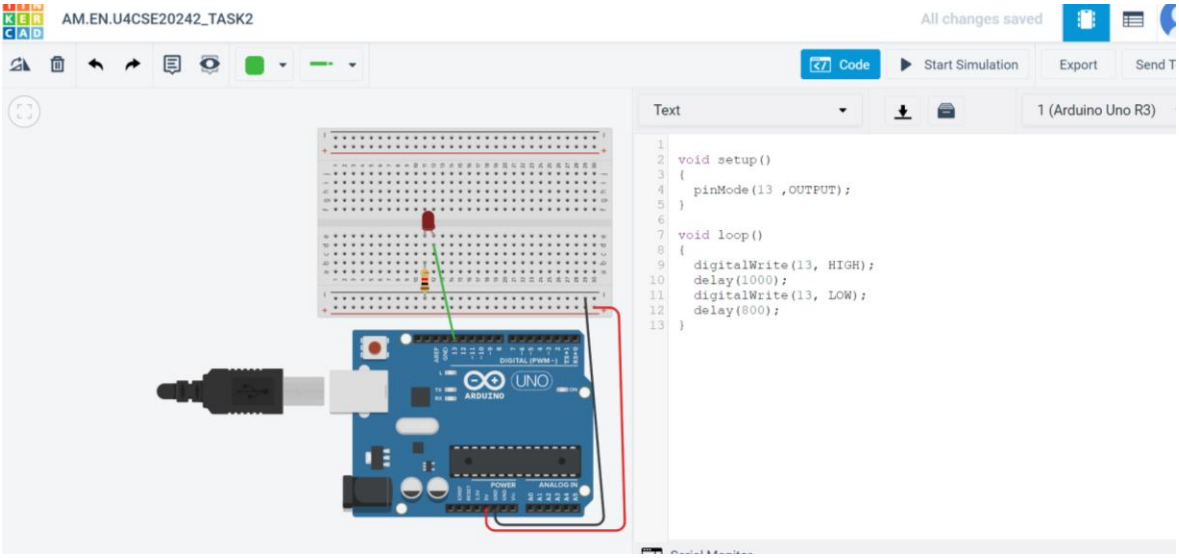
BTech, CSE, Semester 3

1) **Simple LED Blink**



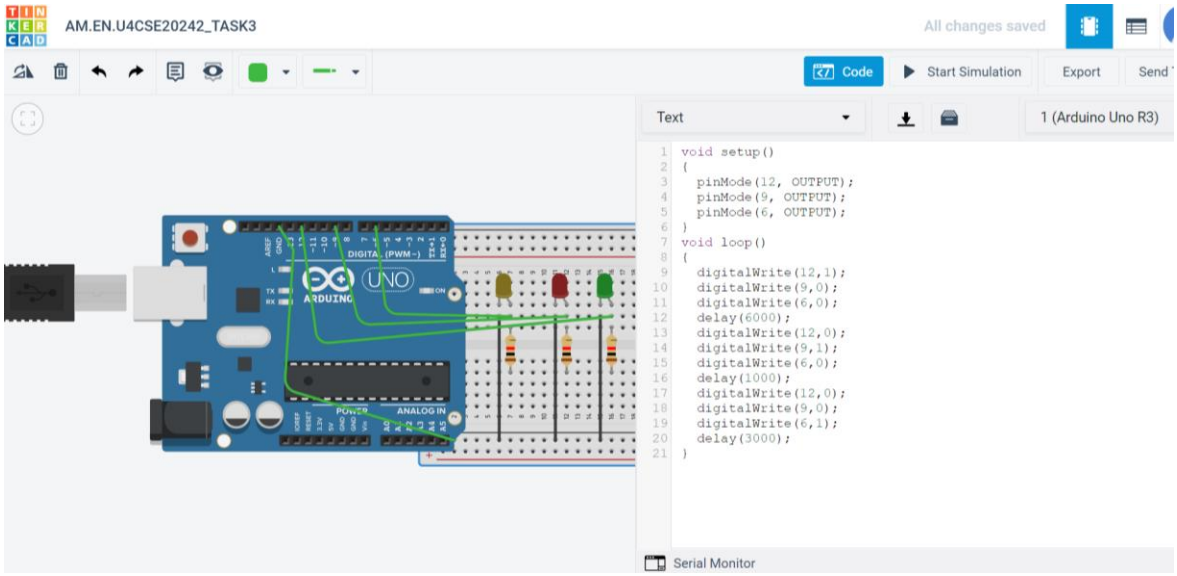
This is Simple LED Blink program and in this experiment I have taken an Arduino Uno R3 3 leds with 3 different colors of Red, Green, Yellow and I have connected the GND to the cathode of Red, Green, Yellow and I have connected the anode of Red bulb to D6, the anode of Green bulb to D10, the anode of yellow bulb to D9 when we give our Status as “R” then the red bulb will glow if we give “Y” then the Yellow bulb will glow or if we give “G” then the green bulb will glow.

2) **LED Blink Using Breadboard and External LED**



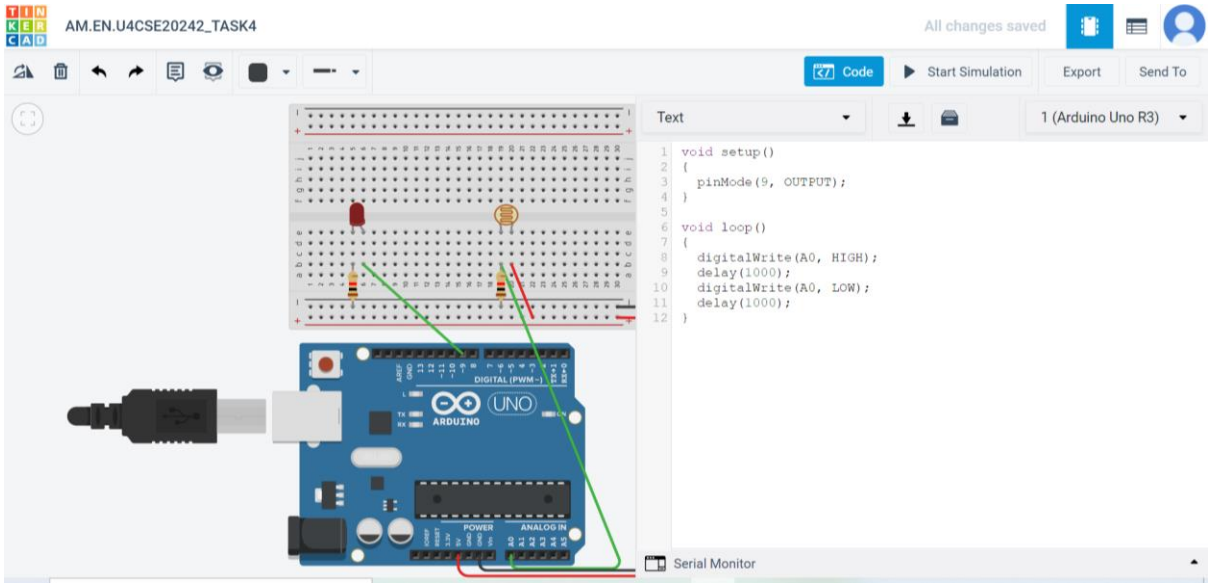
This is LED Blink Using Breadboard and External LED here I have used Arduino Uno R3,bread board, led, resistor and we have connected Arduino Uno R3 with a bread board and I have connected D13 with the anode of the led and we have connected resistor to the cathode and the bulb and the bulb glows for 1000 milliseconds and stop glowing for 800 millisecond

3) **Traffic Light Display with Three LEDs**



This is Traffic Light Display with Three LEDs here I have used Arduino Uno R3,bread board, 3 leds of Red,Green,Yellow,3 resistors, I have connected GND to the negative terminal of the breadboard and I have connected D12 to anode of Green, D9 to anode of Red, D6 to anode of Yellow , all the 3 resistors are connected to the anode of all the 3 bulbs and I have connected the cathode of all the 3 bulbs to the negative terminal of the breadboard. The green bulb glows for 3000 milliseconds, the red bulb glows for 1000 milliseconds, the yellow bulb glows for 6000 milliseconds.

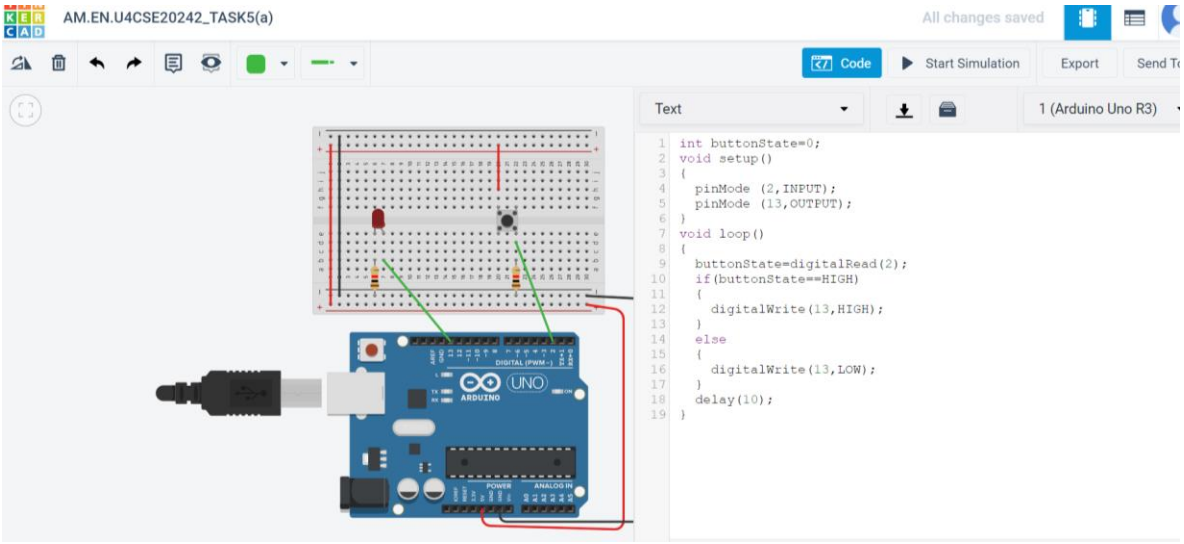
4) **LED ON/OFF Using a Photo Resistor**



This is LED ON/OFF Using a Photo Resistor here I have used Arduino Uno R3, breadboard, led, photoresistor, 2 resistors. Here I have connected 5v to the positive terminal of the breadboard, connected GND to the negative terminal of the bread board, resistor is connected to the cathode of

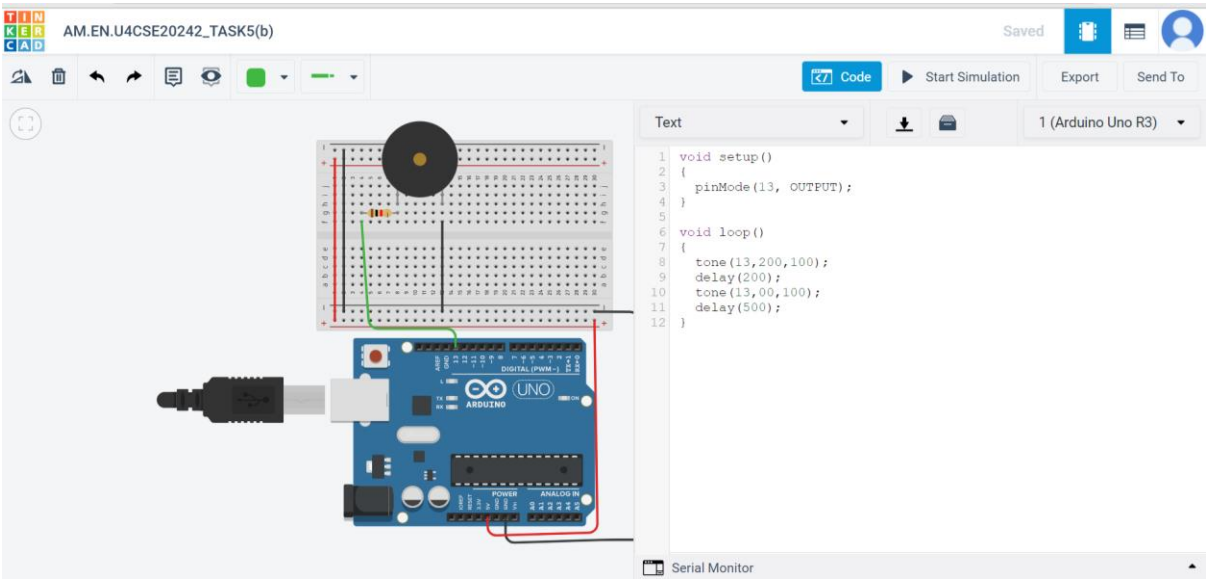
the bulb, resistor is connected to the terminal 1 of the photoresistor, terminal 2 of the photoresistor to the positive terminal of the breadboard,D9 is connected to the anode of the bulb,A0 is connected to the Resistor 2.

5 a) **Pushbutton Digital Input with Arduino**



This is Pushbutton Digital Input with Arduino I have used Arduino Uno R3, breadboard, a bulb, push button,2 resistors, I have connected 5v to the positive terminal , GND to the negative terminal , the cathode of the bulb is connected to the resistor, anode of the bulb is connected to D13, terminal 2a is connected to the resistor and also the terminal 2a is connected D2,terminal 1b is connected to the positive terminal and the positive terminal of one end is connected to the positive terminal, the negative terminal of one end is connected to the negative terminal. If we on the push button then the bulb will be on.

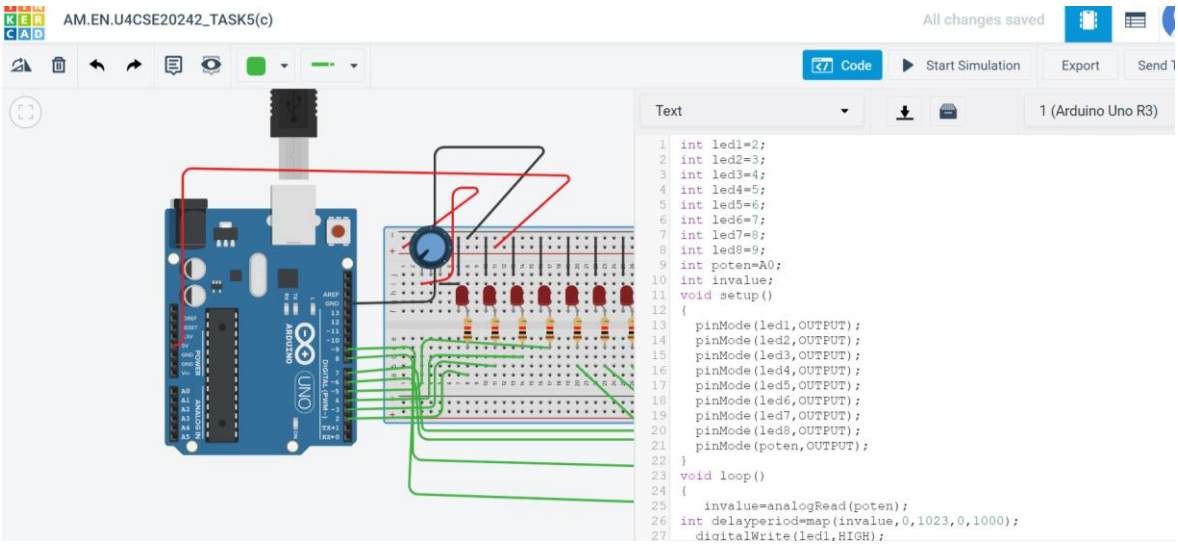
5 b) Arduino Alarm Using Piezo Buzzer



This is Arduino Alarm Using Piezo Buzzer and I have used Arduino Uno R3, breadboard, resistor, piezo, I have connected 5v to the positive terminal , GND to the negative terminal, negative

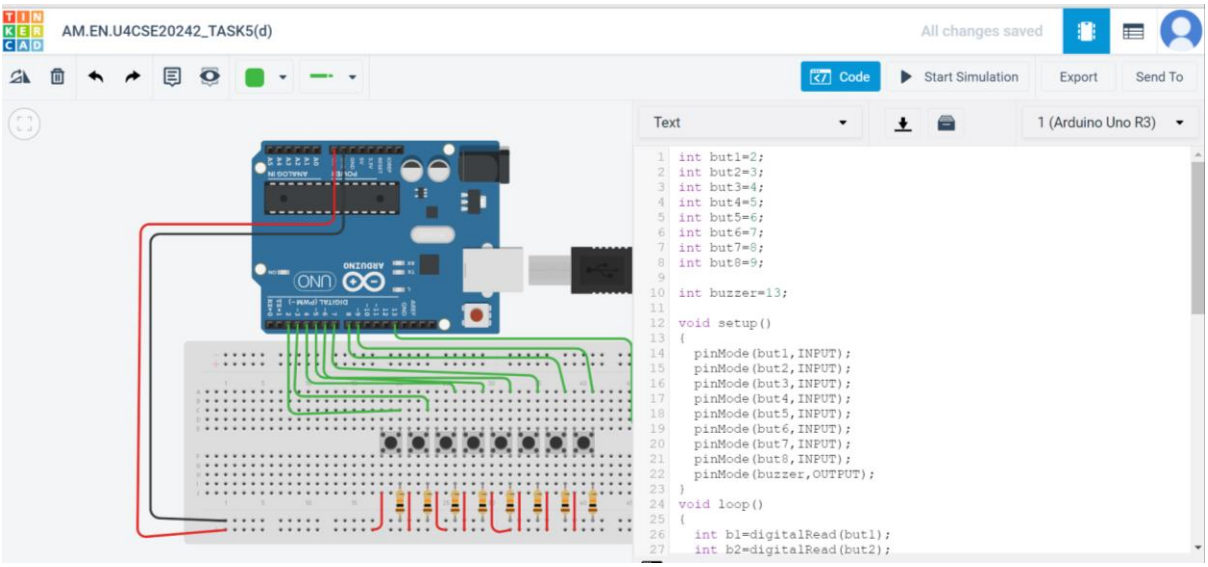
terminal of the piezo is connected to negative terminal of the breadboard, positive terminal of the piezo is connected to the resistor, the positive terminal of one end is connected to the positive terminal, the negative terminal of one end is connected to the negative terminal and when we start the stimulation then the buzzer rings with a delay of 200 milliseconds and 500 milliseconds

5 c) **LED Chaser with Arduino**



This is LED Chaser with Arduino and I have used Arduino Uno R3, breadboard, 8 resistor, 8 bulbs, potentiometer, I have connected 5v to the positive terminal, GND to the negative terminal, the cathode of the bulb is connected to the negative terminal and anode is connected to the resistor, D2,D3,D4,D5,D6,D7,D8,D9 is connected to the 8 resistors and the1st terminal of the potentiometer is connected to the positive terminal,2nd terminal is connected to the cathode and the bulbs start glowing one by one

5 d) Arduino Piano with Piezo Buzzer



This is Arduino Piano with Piezo Buzzer I have used Arduino Uno R3, breadboard, 8 resistor, 8 push buttons, a piezo , I have connected vin to the positive terminal, GND to the negative terminal , D2,D3,D4,D5,D6,D7,D8,D9 are connected to the 2 b terminal of each push button and 1 a terminal is of each push button is connected to positive terminal, 2 b terminal of each push button are

connected to resistors,D13 is connected to the positive terminal of piezo, negative terminal of piezo is connected to the negative end of the breadboard. When we press the push button the buzzer starts ringing