NAME:-ADIREDDY PRADEEP

ROLL NO:-122010333044

Experiment No 1

Aim: Control the LED with Arduino Board and tinkercad software.

Objectives: Student should get the knowledge of Arduino Board and control of output device (LED)

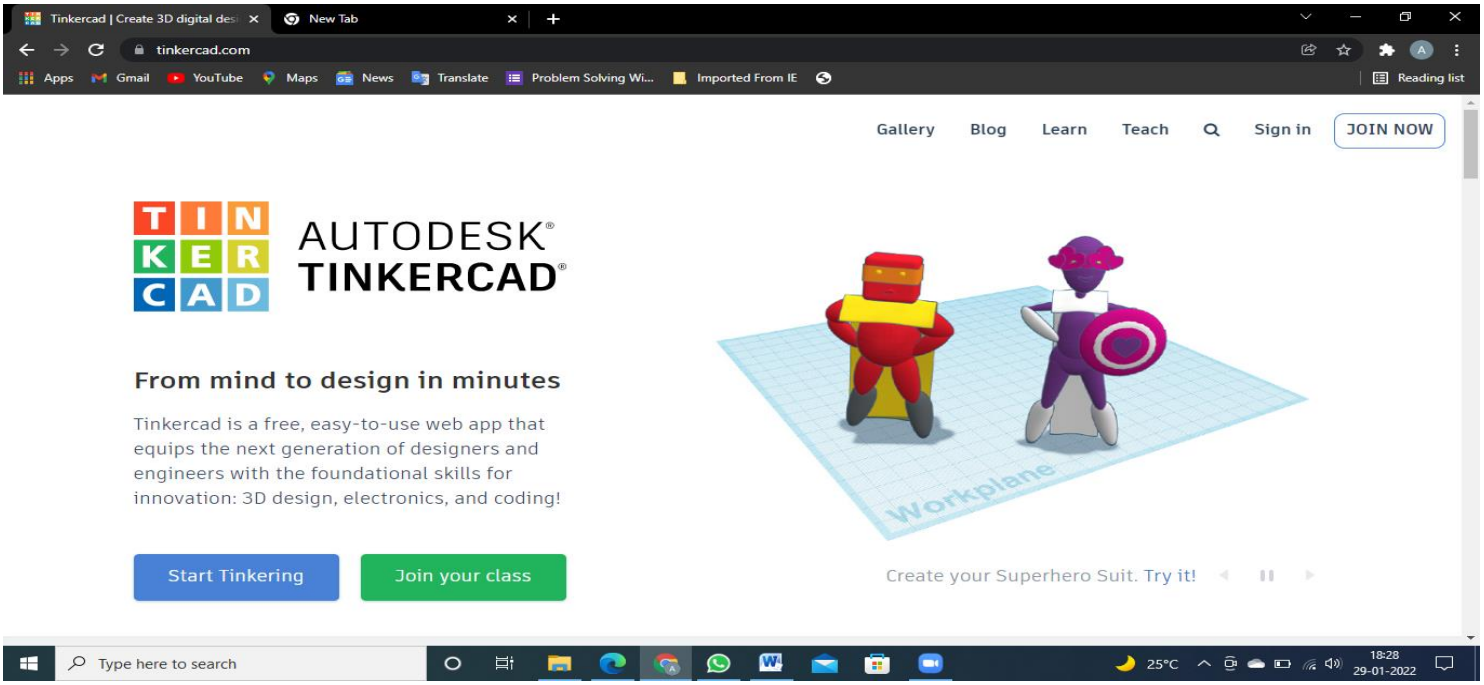
Outcomes: Student will be Write program using Arduino IDE for Blinking LED

Hardware Requirements:

- 1x Breadboard
- 1x Arduino Uno
- 1x LED
- 1x 330Ω Resistor
- 2x Jumper Wires

Procedure:

1.create a new account in www.tinkercad.com or login with existing gmail account.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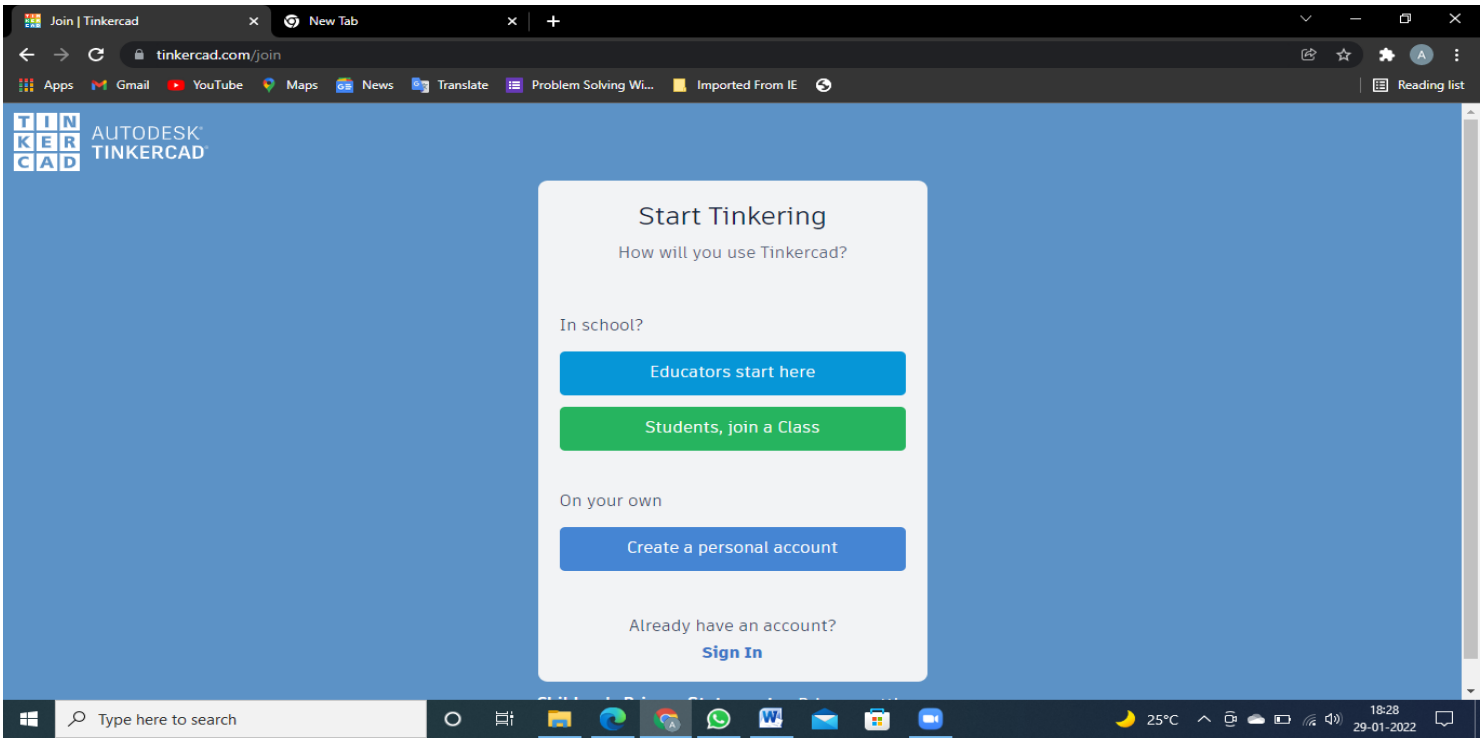
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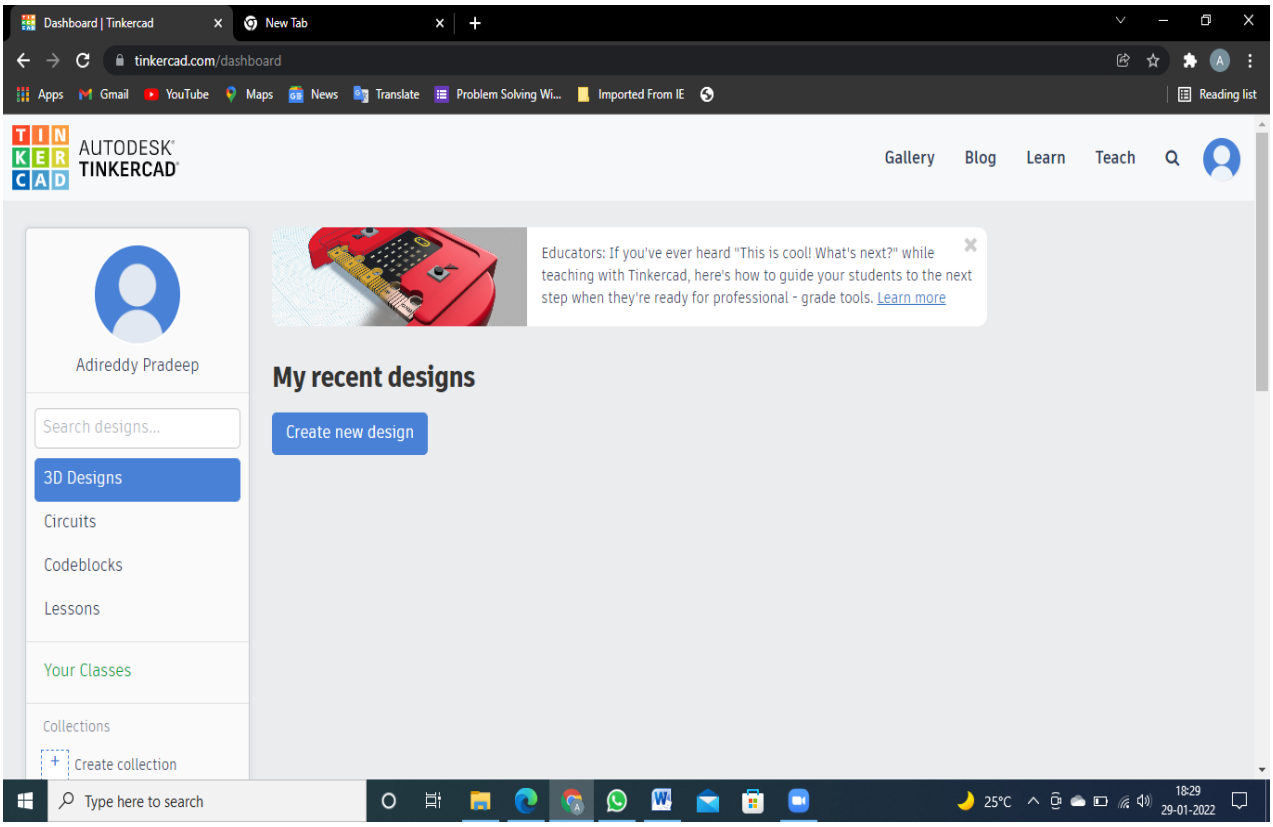
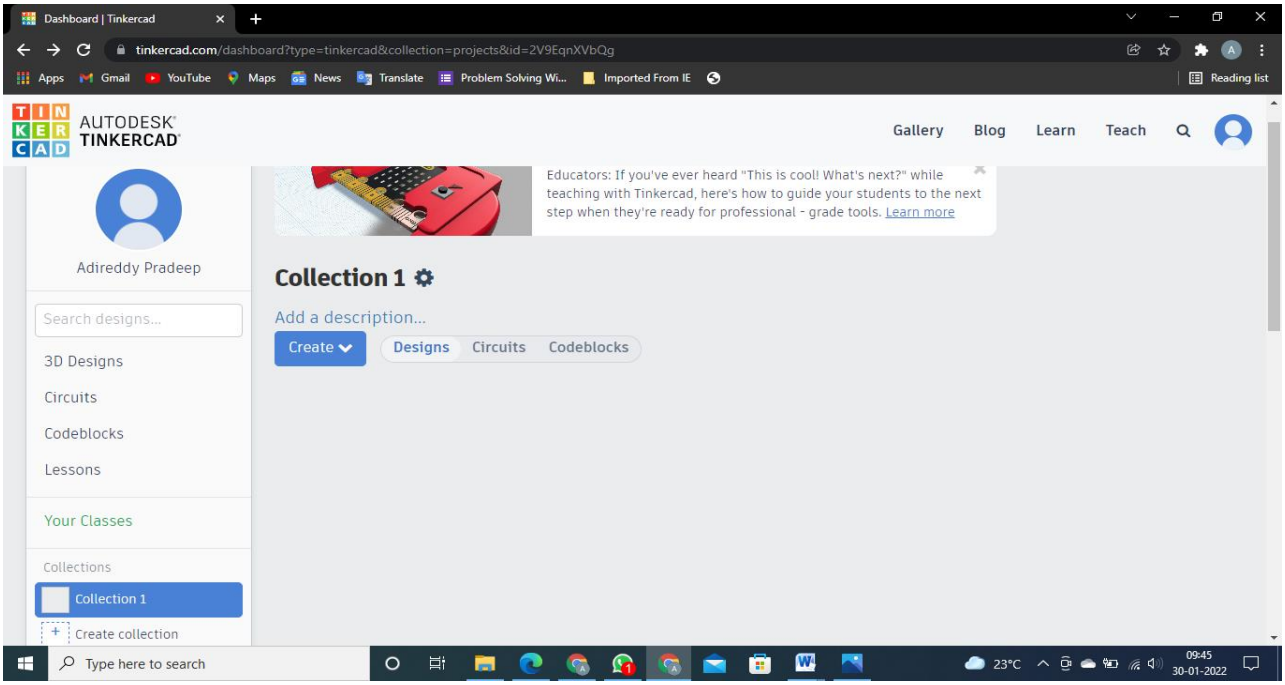
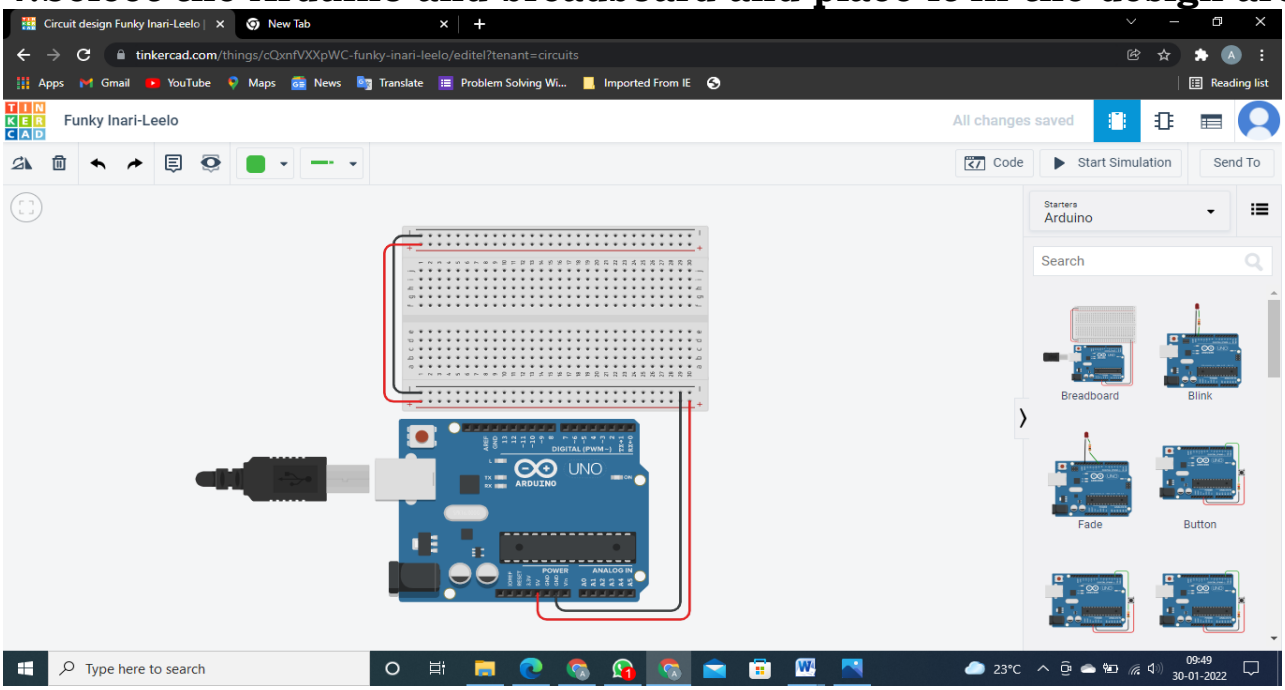
2. click on go to create project and create a new project



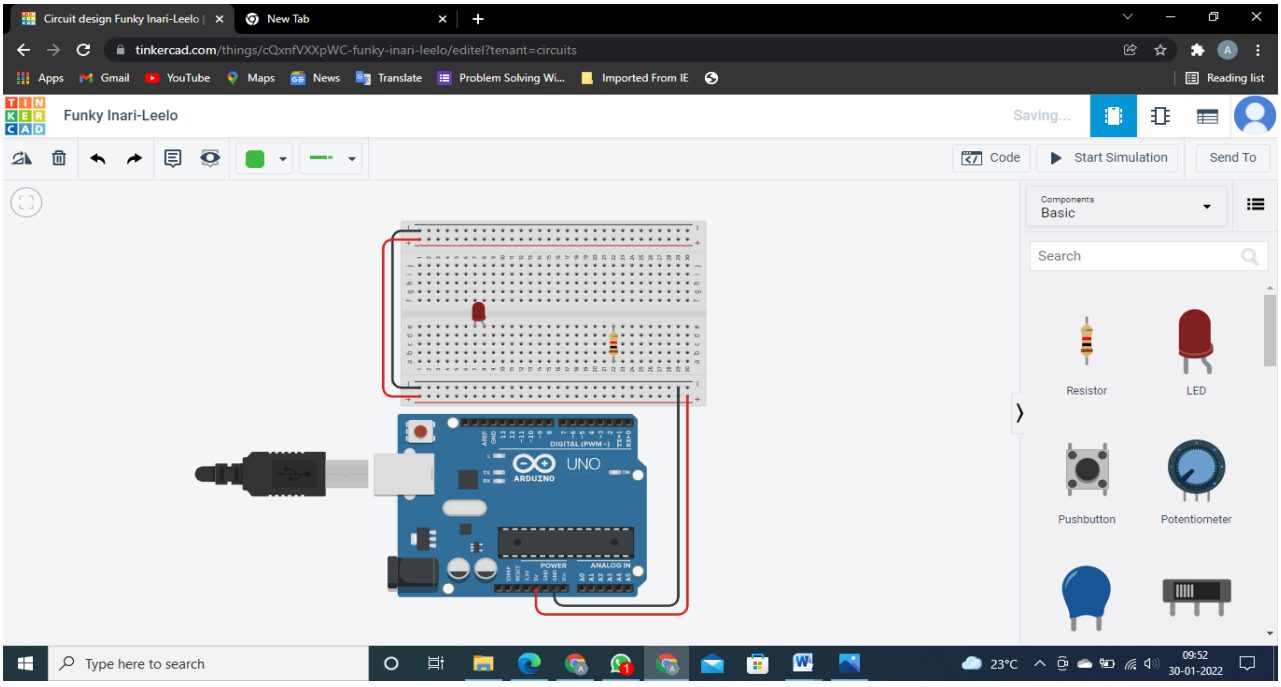
3.go to create menu and select circuit.



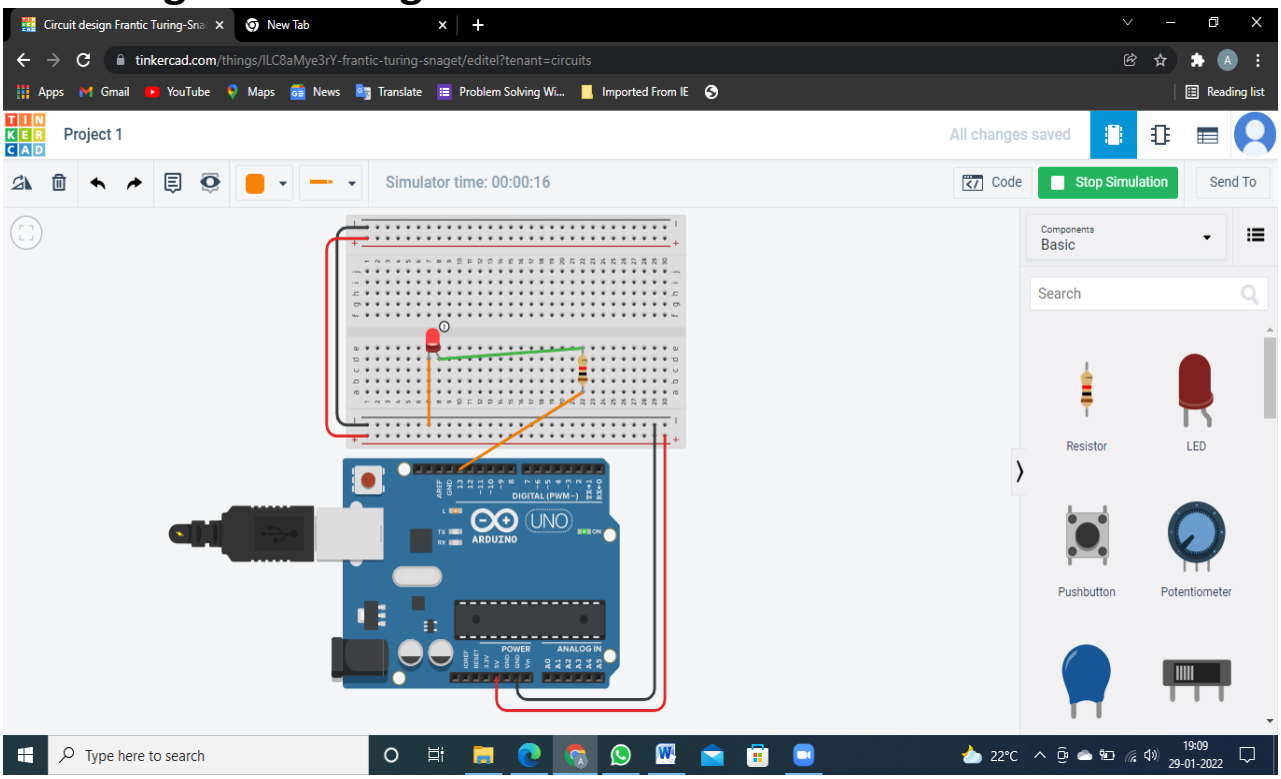
4.Select the Arduino and breadboard and place it in the design area.



5. Place Led and Resistor.



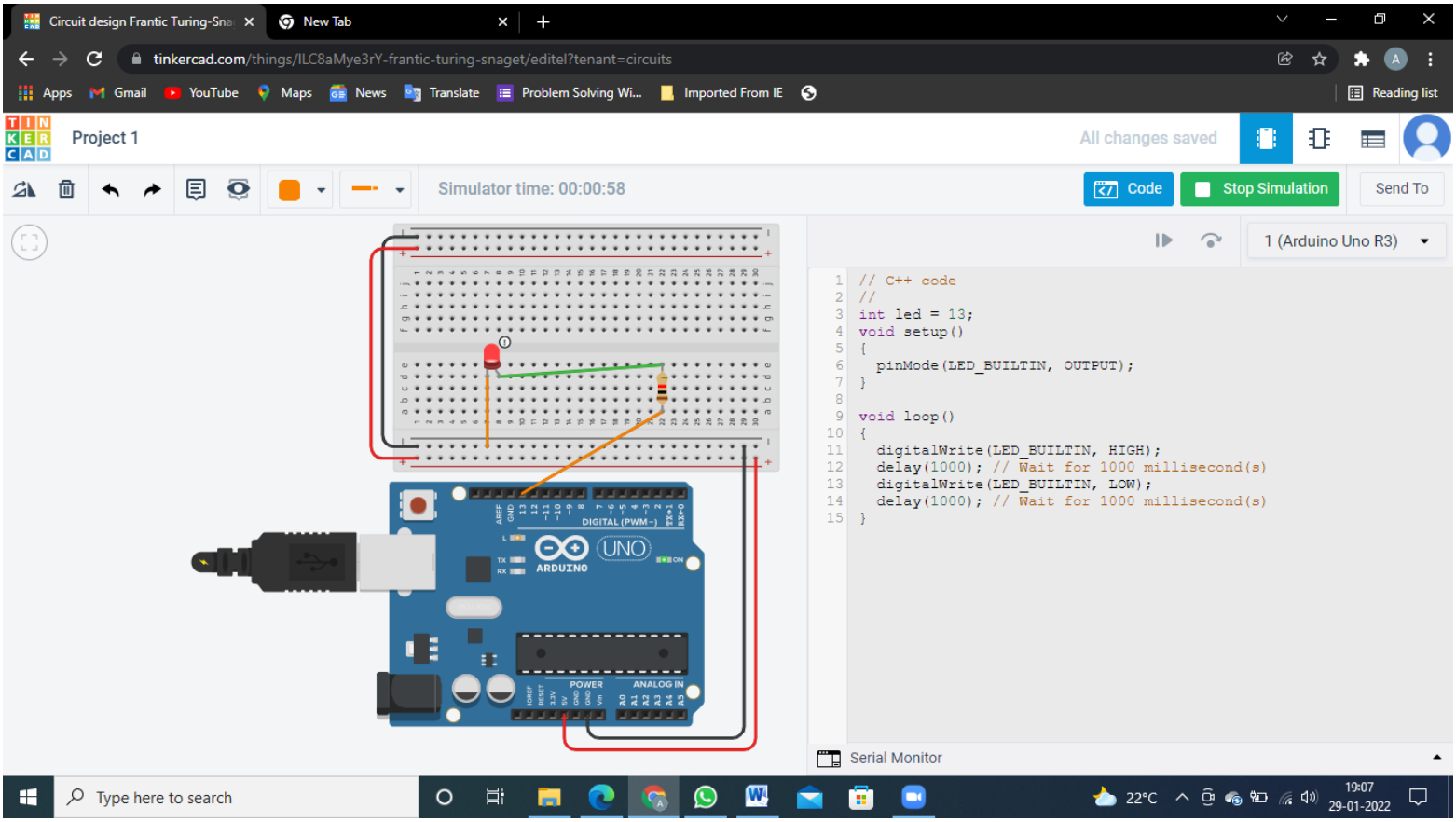
6.Search the component LED and resistor, make connections as shown in above figures. Configure the resistor value as 330ohms.



7.Attach the LED to an output pin of the Aurdino D13.

8. Once the circuit connection are ready ,programming the aurduino can be done in three ways.

1) Using code blocks
2) Using text program
3) Using code blocks + text programming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Reading list
Project 1
All changes saved
Simulator time: 00:00:58
Code
Stop Simulation
Send To
1 (Arduino Uno R3)
// C++ code
//
int led = 13;
void setup()
{
pinMode(LED_BUILTIN, OUTPUT);
}
void loop()
{
digitalWrite(LED_BUILTIN, HIGH);
delay(1000); // Wait for 1000 millisecond(s)
digitalWrite(LED_BUILTIN, LOW);
delay(1000); // Wait for 1000 millisecond(s)
}
Serial Monitor
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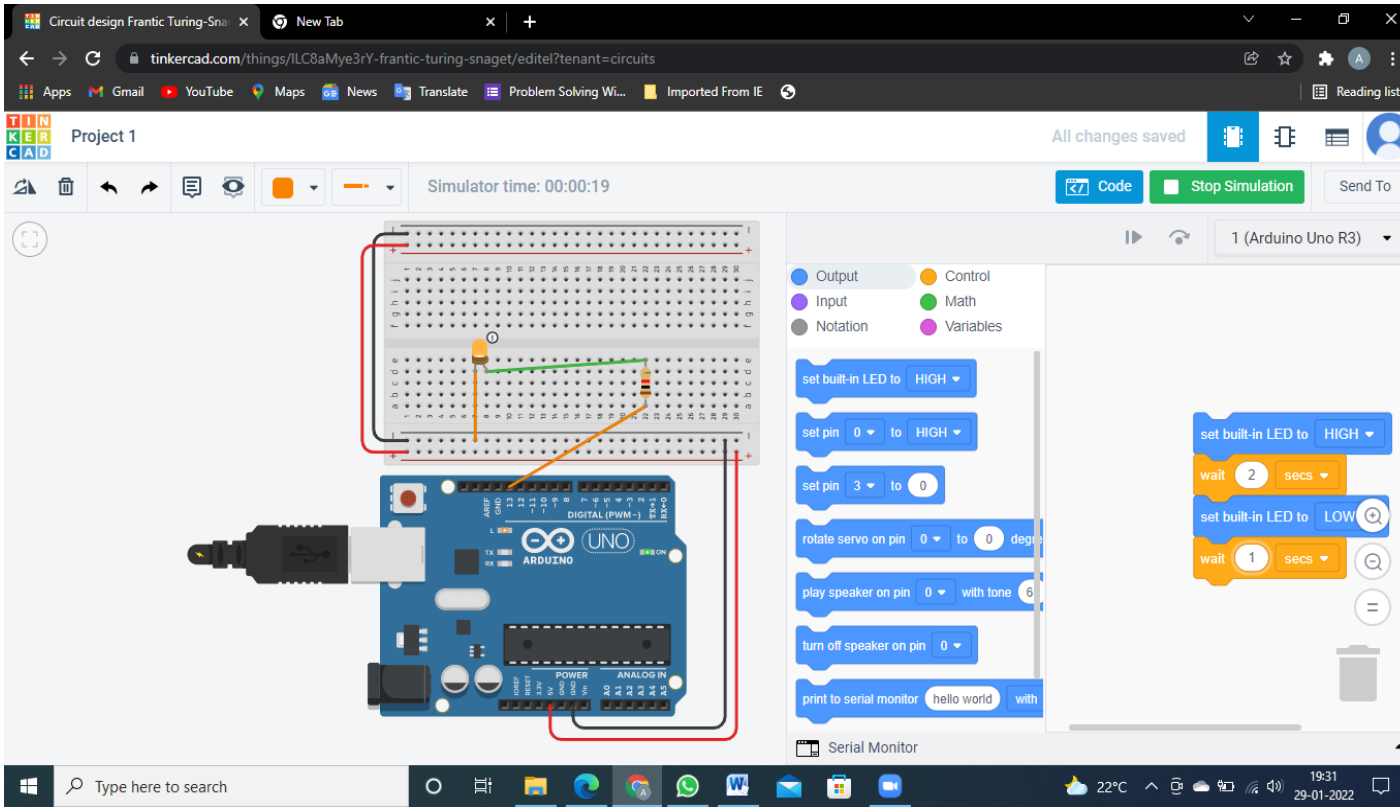
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Imported From IE
Reading list
Project 1
All changes saved
Simulator time: 00:00:19
Code
Stop Simulation
Send To
1 (Arduino Uno R3)
Output
Control
Input
Math
Notation
Variables
set built-in LED to HIGH
set pin 0 to HIGH
set pin 3 to 0
rotate servo on pin 0 to 0 degr
play speaker on pin 0 with tone 6
turn off speaker on pin 0
print to serial monitor hello world with
set built-in LED to HIGH
wait 2 secs
set built-in LED to LOW
wait 1 secs
Serial Monitor
Type here to search
22°C
19:31
29-01-2022