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ROLL NO:-

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EXPERIMENT - 1

AIM:- Control the LED with Arduino Board and tinkercad software.

OBJECTIVE:- To get knowledge of Arduino board and control of output

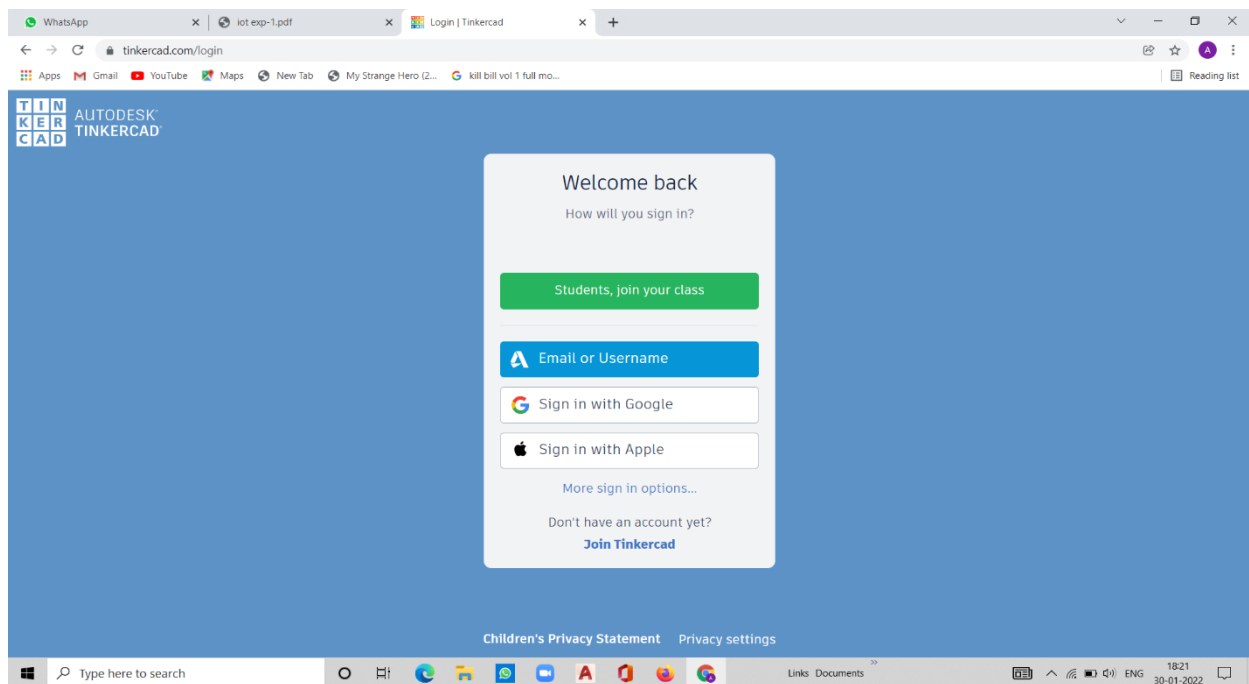
device(LED). **OUTCOMES:-** Students will write program using Arduino IDE for

Blinking LED. **HARDWARE REQUIREMENT:**

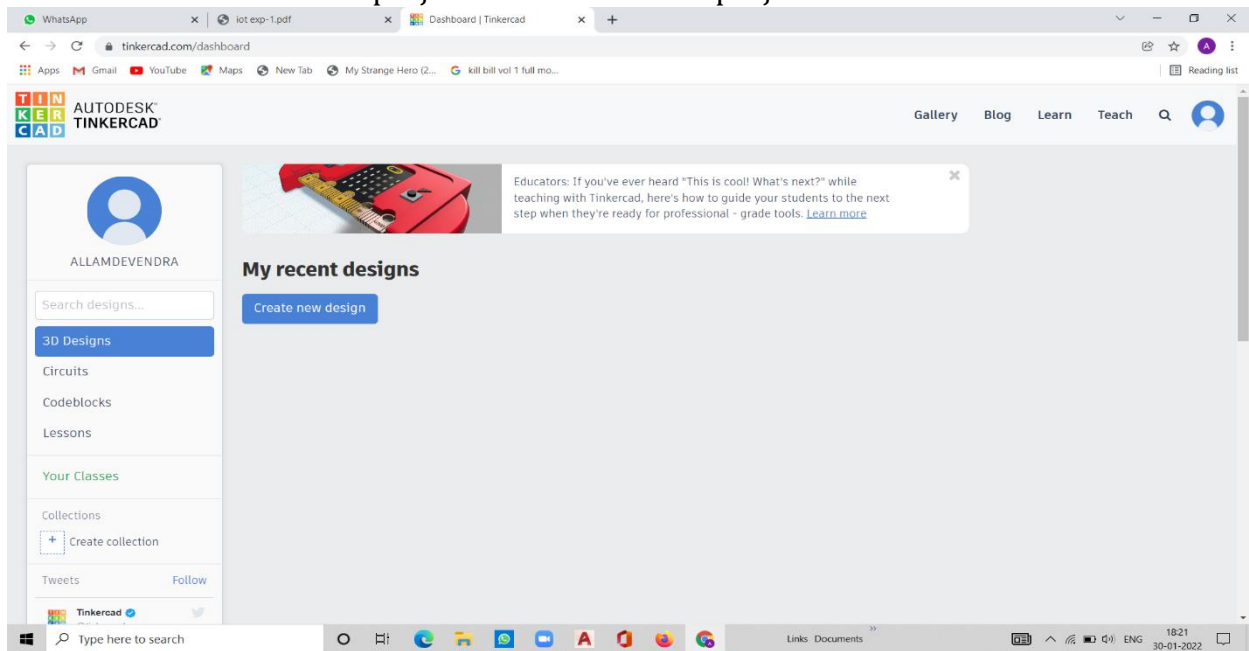
- 1)** One Breadboard
- 2)** One Arduino Uno
- 3)** One LED
- 4)** One 330Ω Resistor
- 5)** Two Jumper Wires

PROCEDURE:-

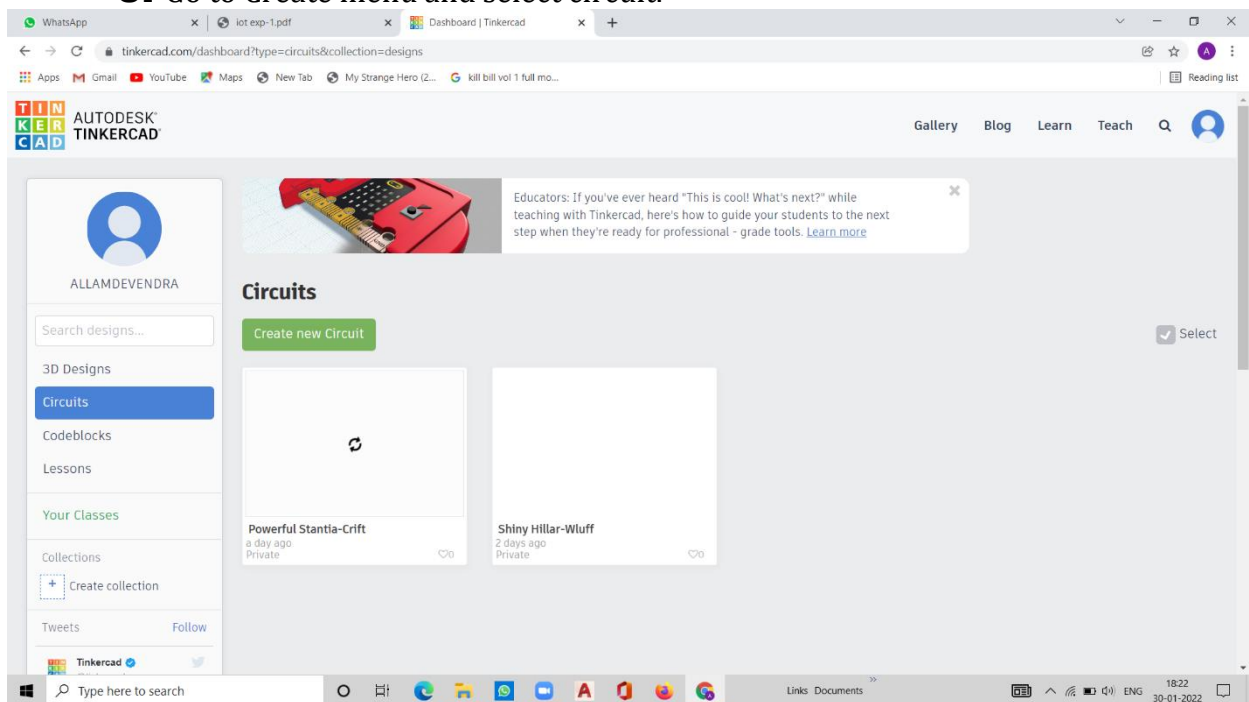
- 1.** Login with an existing gmail account or create a new account.



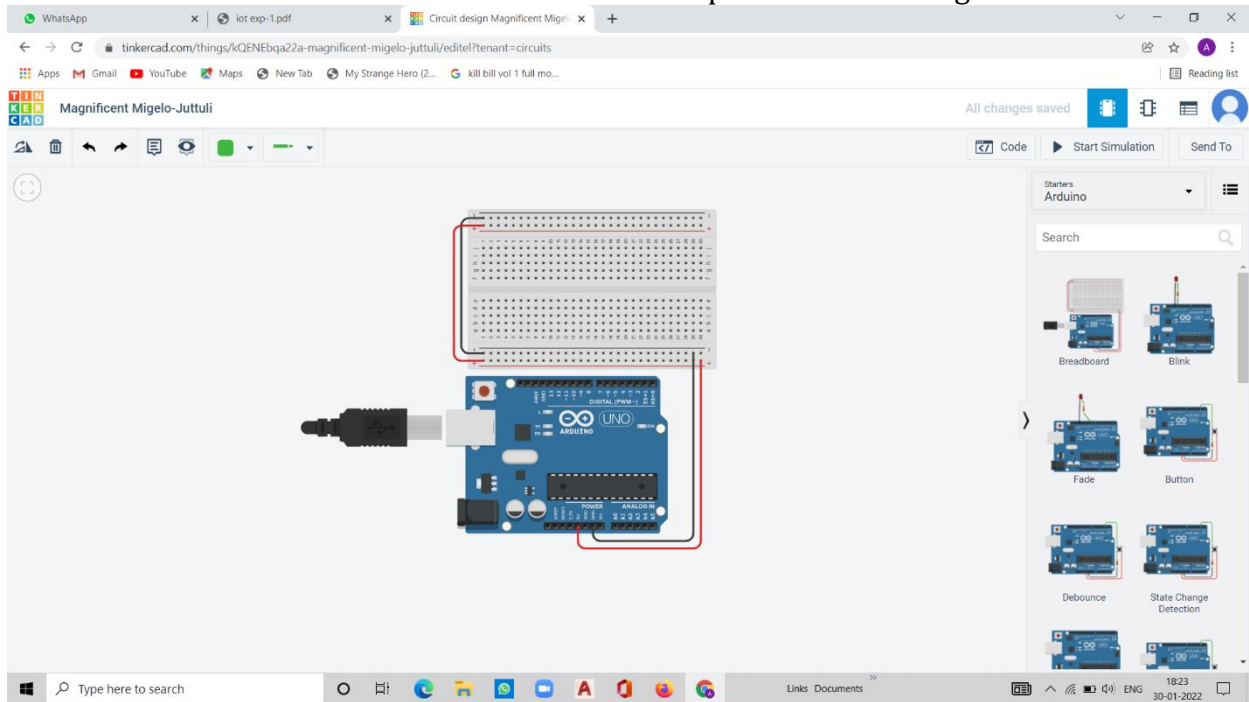
2. Click on create project and create a new project



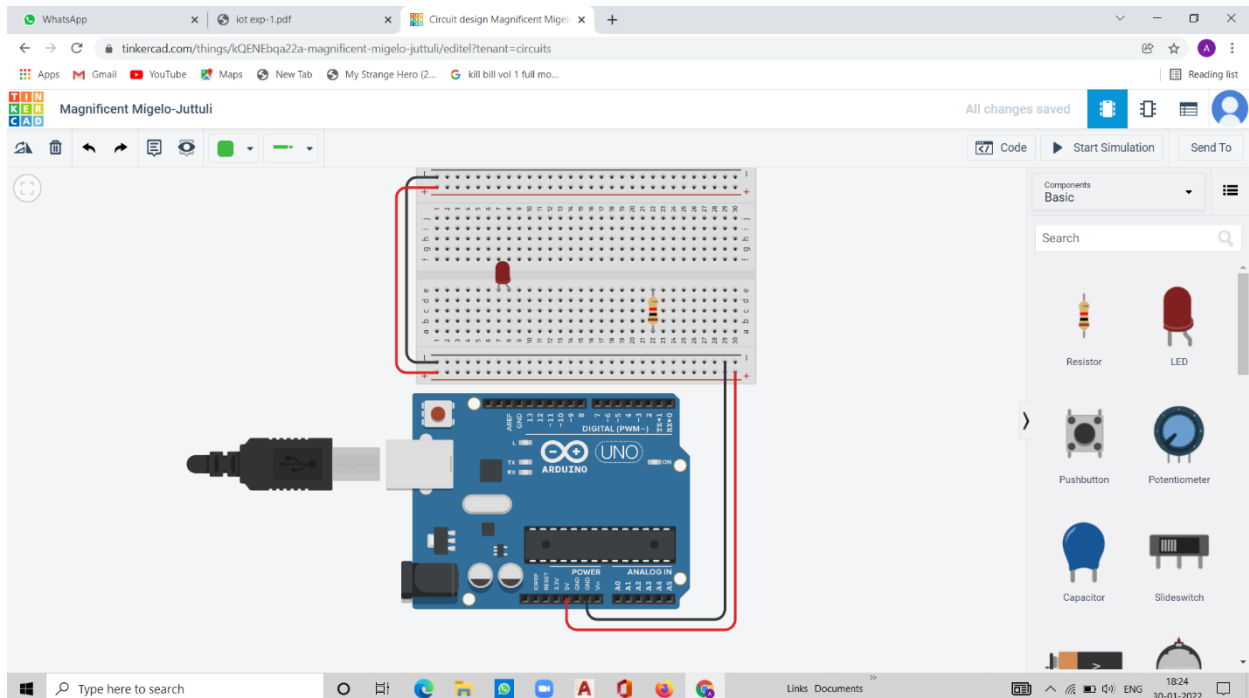
3. Go to Create menu and select circuit.



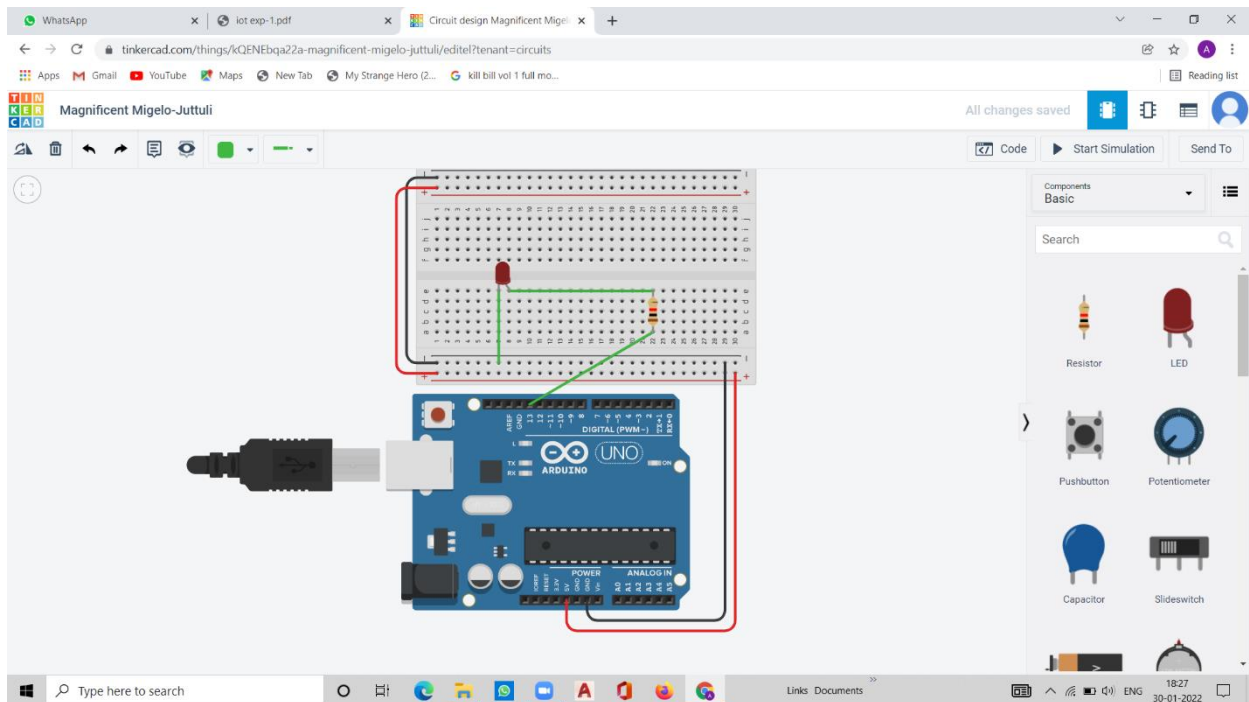
4. Select the Arduino and breadboard and place it in the design area.



5. Place Led and Resistor



- 6.** Search the component LED and resistor, make connections as shown and resistor value as 330ohms.



- 7.** Once circuit connections are ready , programming the Arduino can be done in 3 ways
- 1) Using code blocks**
 - 2) Using text program**
 - 3) Using code blocks + text programming**

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Magnificent Migelo-Juttuli

Simulator time: 00:00:05

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

Type here to search

Links Documents

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Simulator time: 00:00:22

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 degree

play speaker on pin 0 with tone 60

turn off speaker on pin 0

print to serial monitor hello world with

set RGB LED in pins 3 3 3

set built-in LED to HIGH

wait 1 secs

set built-in LED to LOW

wait 1 secs

Serial Monitor

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