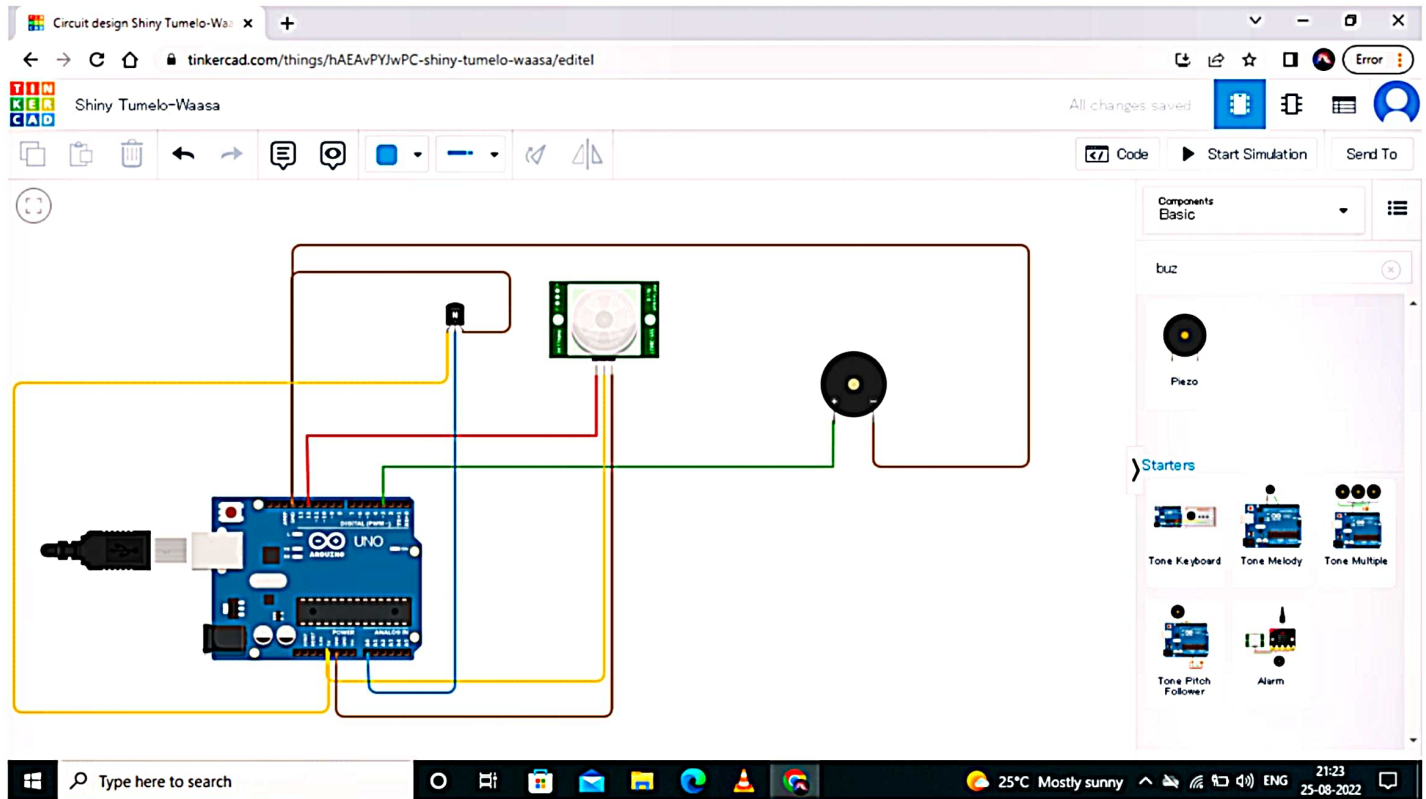
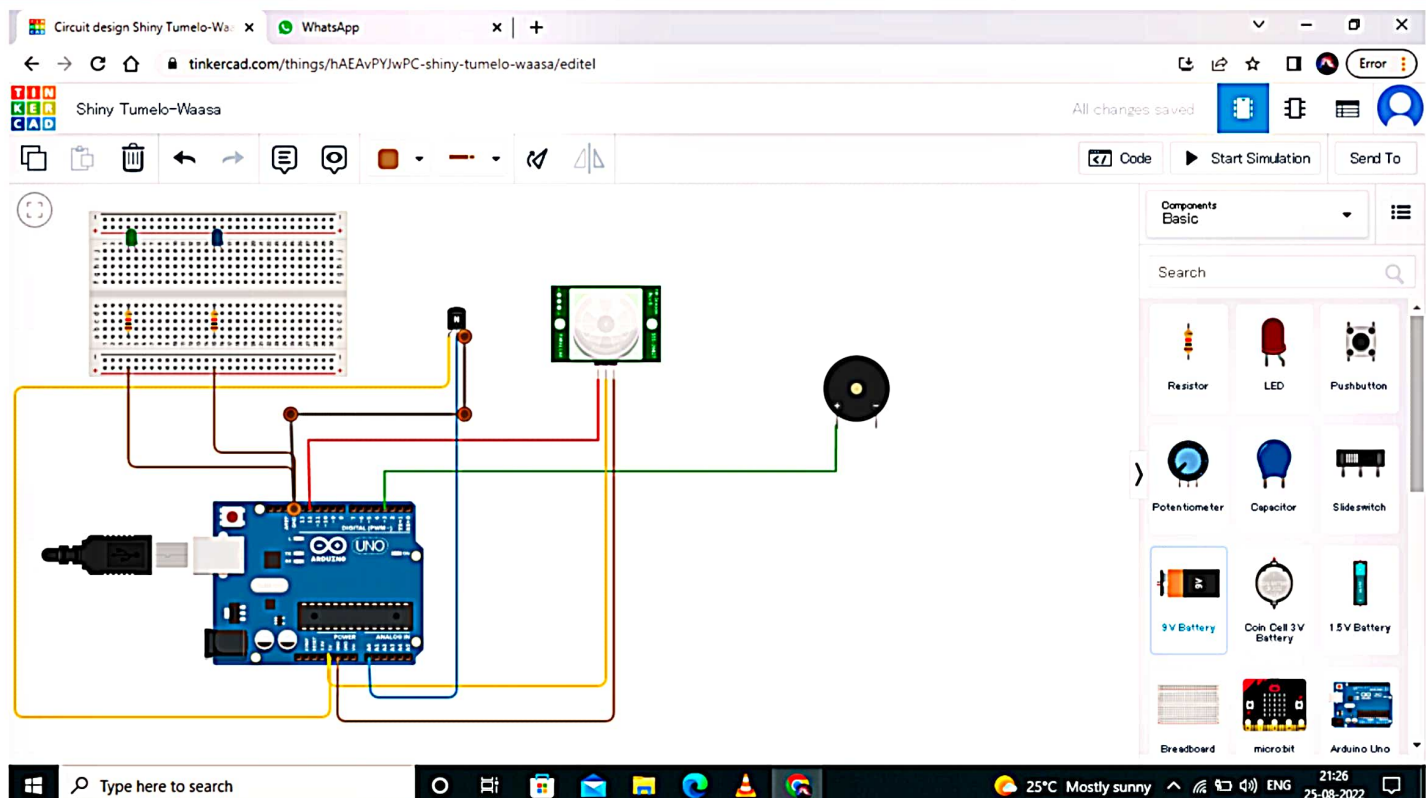


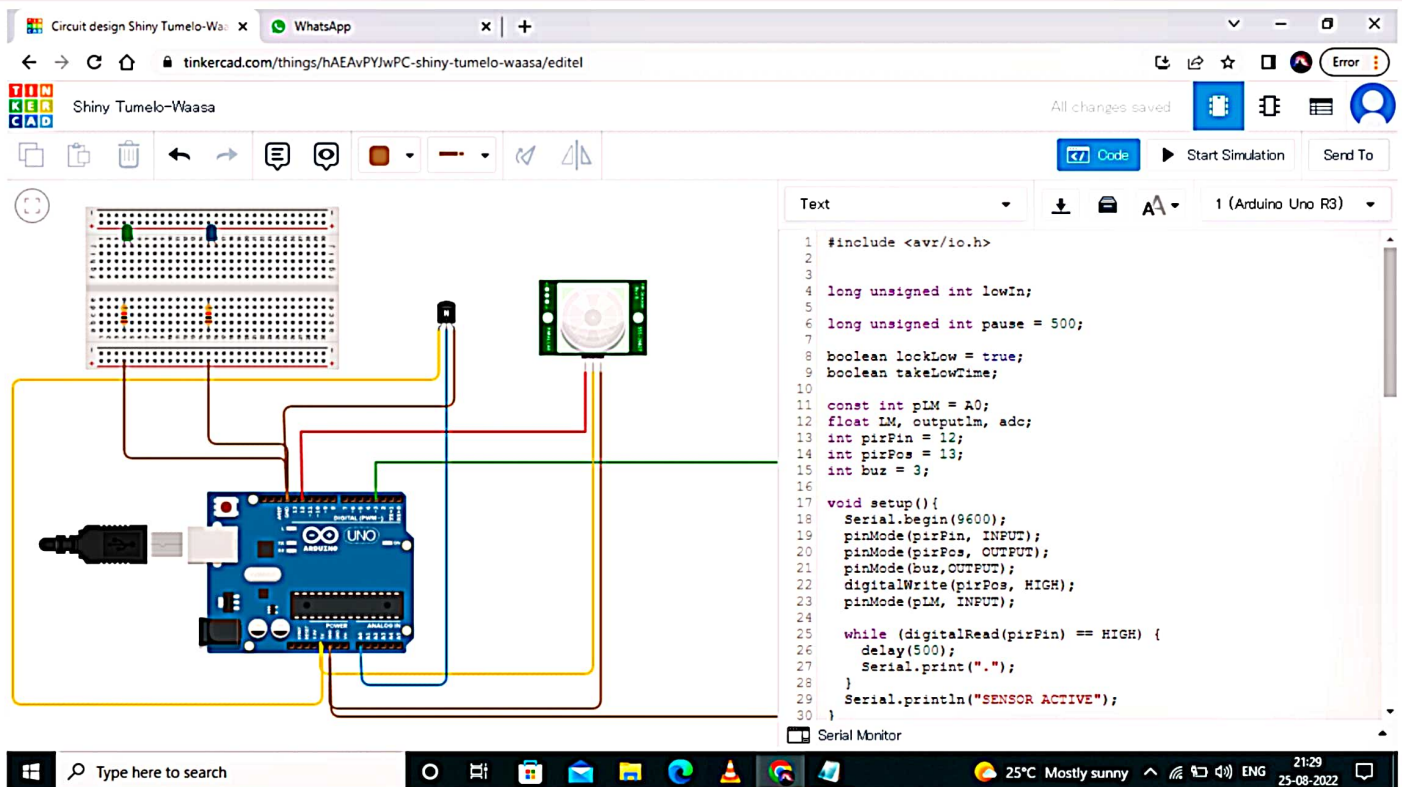
Assignment 1: Make a smart home tinkercad, using 2 sensor, led, buzzer in simulate in a single code



Using Tinkercad connecting the circuit



Code inserting:



Program code:

```
#include <avr/io.h>
```

```
long unsigned int lowIn;
```

```
long unsigned int pause = 500;
```

```
boolean lockLow = true;
boolean takeLowTime;
```

```
const int pLM = A0;
float LM, outputlm, adc;
int pirPin = 12;
int pirPos = 13;
int buz = 3;
```

```
void setup(){  
  Serial.begin(9600);  
  pinMode(pirPin, INPUT);  
  pinMode(pirPos, OUTPUT);  
  pinMode(buz,OUTPUT);  
  digitalWrite(pirPos, HIGH);  
  pinMode(pLM, INPUT);  
  
  while (digitalRead(pirPin) ==  
    HIGH) {  
    delay(500);  
    Serial.print(".");  
  }  
  Serial.println("SENSOR  
ACTIVE");  
}  
void lm35(){  
  adc = analogRead(pLM);  
  LM = adc / 2.0479;  
  outputlm=adc*4.883;  
  if (LM >= 10)  
  {  
    analogWrite(buz,50);  
  
    Serial.println("Kecepatan=50");  
  }  
  if (LM >= 60)  
  {  
    analogWrite(buz,100);  
  
    Serial.println("Kecepatan=100");  
  }  
}
```

```

}
void loop(){
if(digitalRead(pirPin) == HIGH){
  lm35();
  if(lockLow){

    lockLow = false;
    Serial.println("---");
    Serial.print("motion detected at ");
    Serial.print(millis()/1000);
    Serial.println(" sec");
    delay(50);
  }
  takeLowTime = true;
}

if(digitalRead(pirPin) == LOW){
  digitalWrite(buz,LOW);
  if(takeLowTime){
    lowIn = millis();
    takeLowTime = false;
  }

  if(!lockLow && millis() - lowIn >
  pause){

    lockLow = true;
    Serial.print("motion ended at ");
    Serial.print((millis() -
    pause)/1000);
    Serial.println(" sec");
    delay(50);
  }
  delay(1000);
  Serial.print(", LM: ");
  Serial.print(LM);
  Serial.println();
  delay(1000);
  Serial.print(", ADC: ");
  Serial.print(adc);
  Serial.println();
  delay(1000);
}

```

Output:

