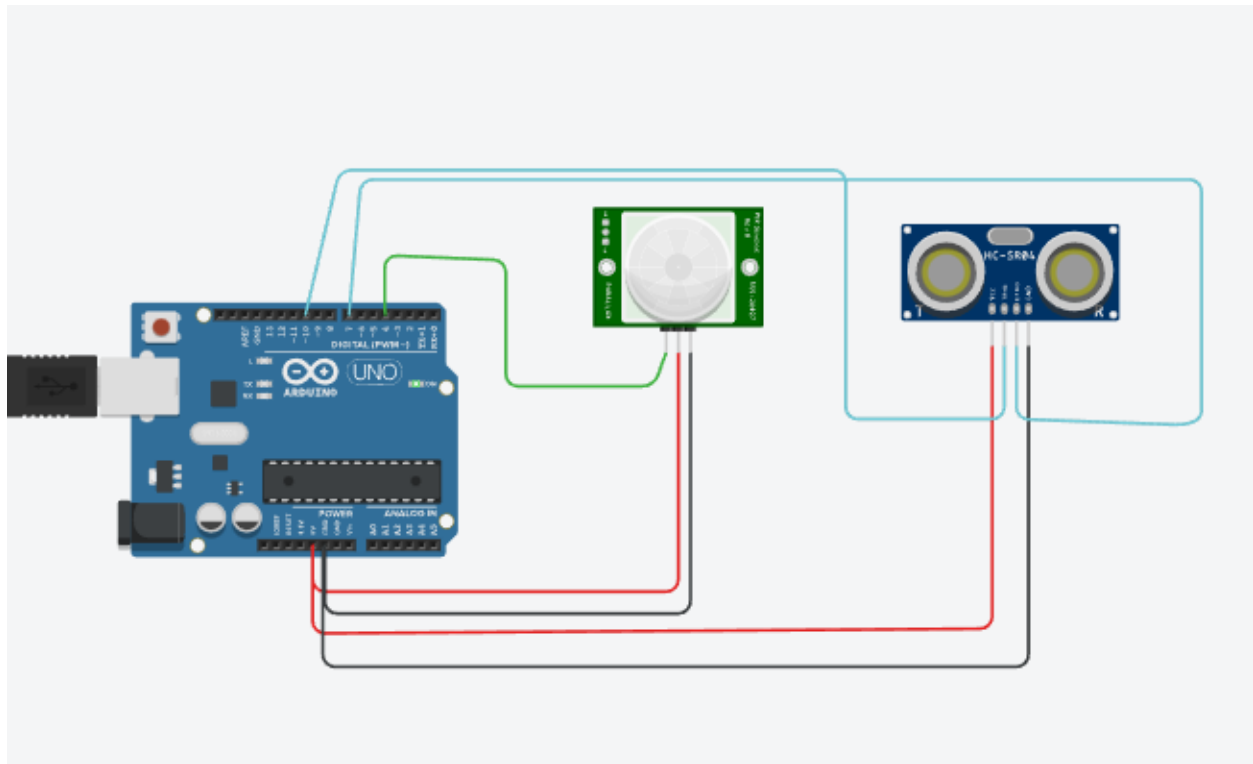
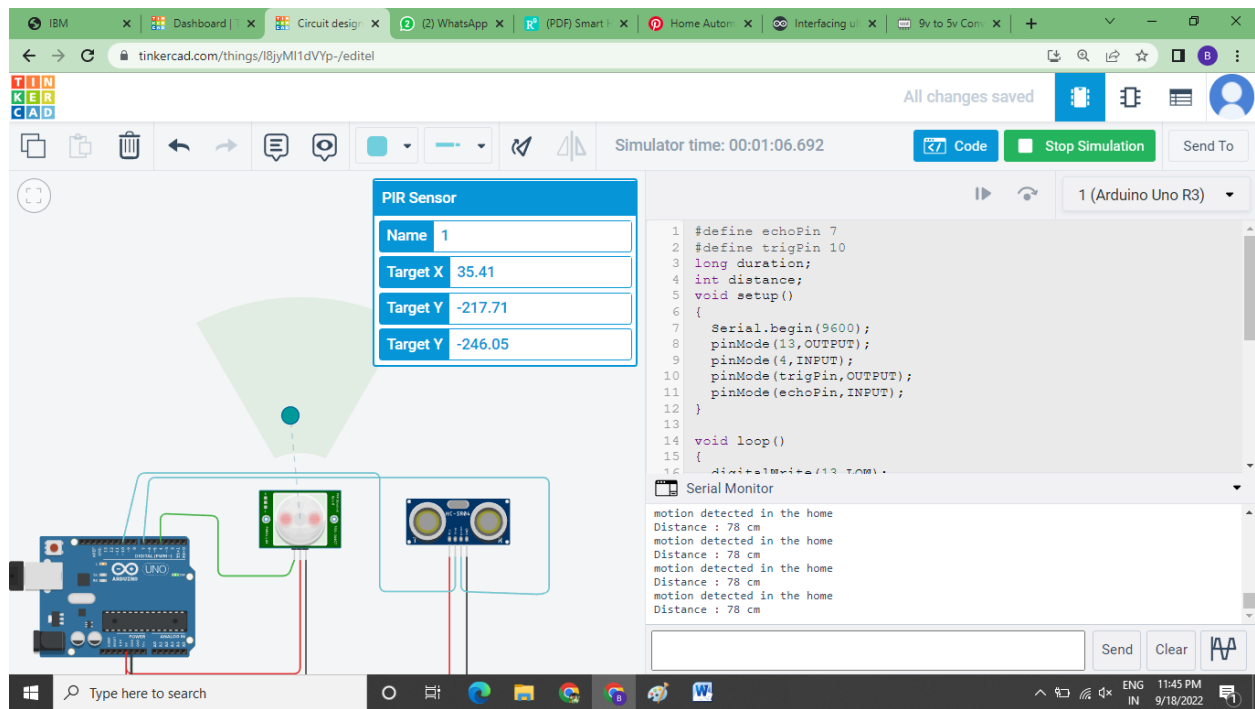


ASSIGNMENT 1

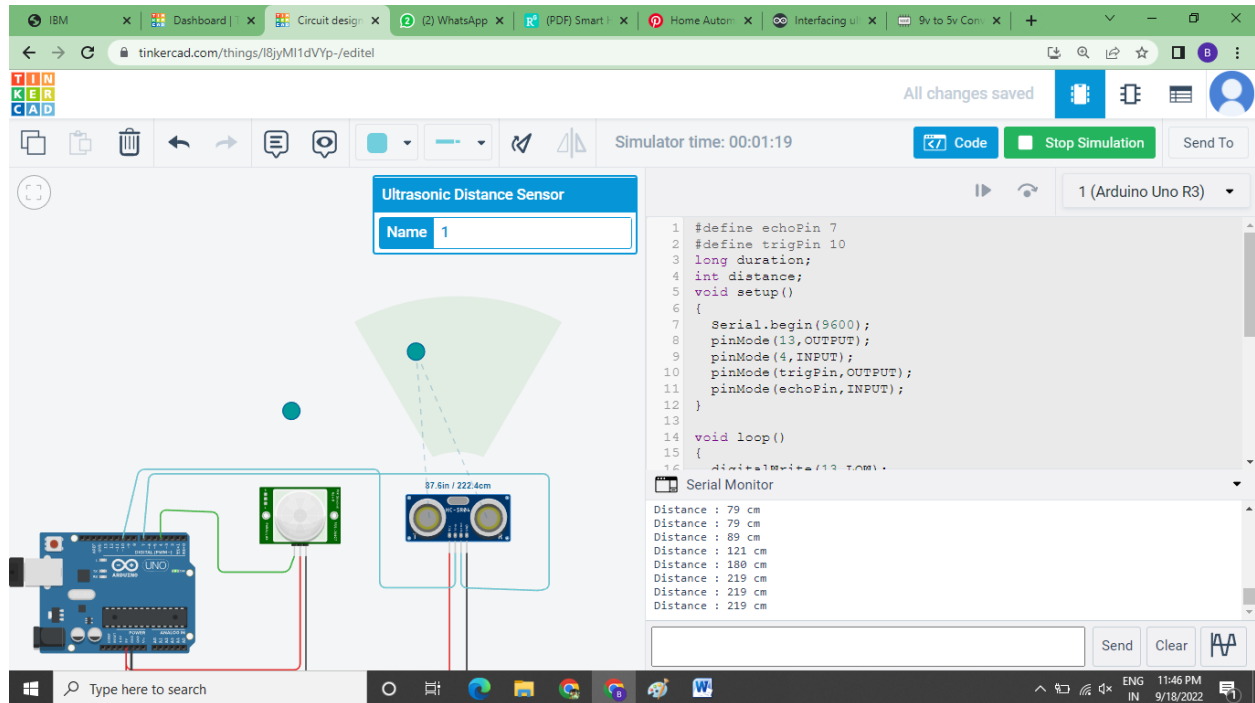
SMART HOME USING ARDUINO UNO:



Circuit diagram



Working of PIR sensor



Working of Ultrasonic Sensor

CODE:

```
#define echoPin 7

#define trigPin 10

long duration;

int distance;

void setup()

{

    Serial.begin(9600);

    pinMode(13,OUTPUT);

    pinMode(4,INPUT);

    pinMode(trigPin,OUTPUT);

    pinMode(echoPin,INPUT);

}


void loop()

{

    digitalWrite(13,LOW);

    int a= digitalRead(4);

    if(a==1){

        Serial.println("motion detected in the home");

        digitalWrite(13,HIGH);

    }

    digitalWrite(trigPin,LOW);

    delayMicroseconds(200);

    digitalWrite(trigPin,HIGH);
```

```
delayMicroseconds(10);  
digitalWrite(trigPin,LOW);  
duration=pulseIn(echoPin,HIGH);  
distance=(duration*0.034/2);  
Serial.print("Distance : ");  
Serial.print(distance);  
Serial.println(" cm ");  
delay(1000);  
}
```