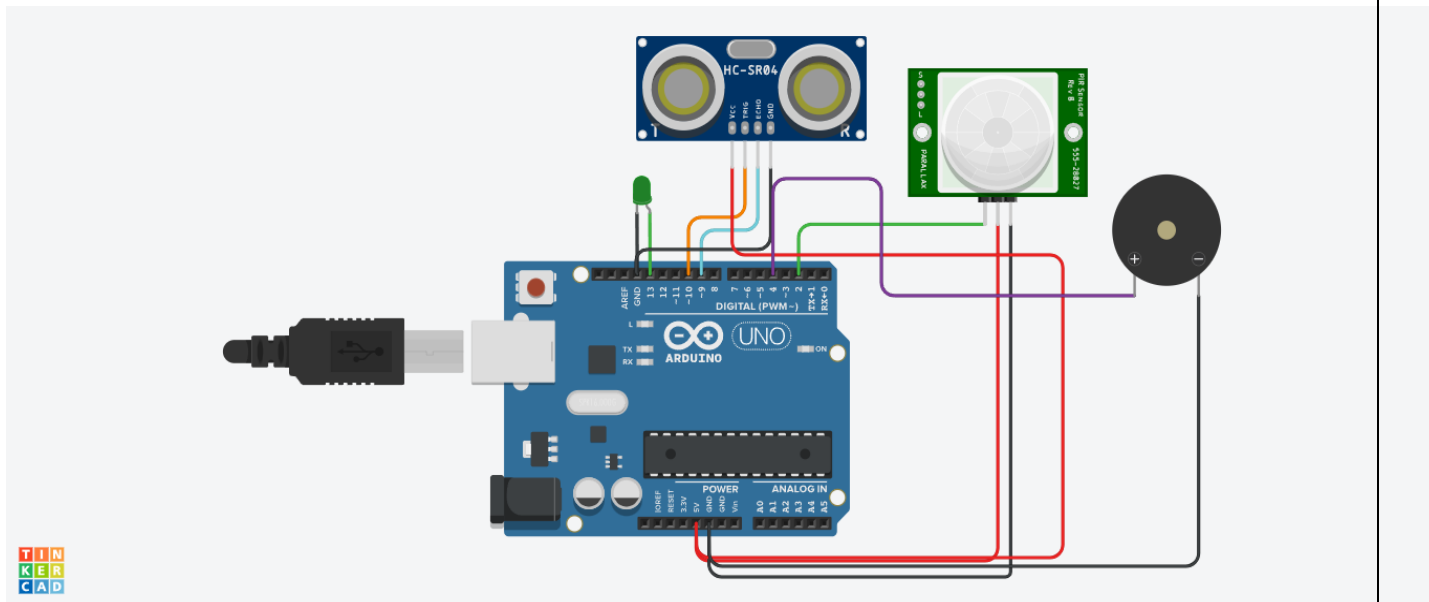


SMART HOME

COMPONENTS USED:

- Arduino
- LED
- Buzzer
- Ultrasonic sensor
- PIR sensor

CIRCUIT DIAGRAM:



CODE:

```
// C++ code
```

```
//
```

```
int pir=0;
```

```
int trig=10;

int echo=9;

int buzz=4;

void setup()

{

    pinMode(2, INPUT);

    pinMode(echo, INPUT);

    pinMode(13, OUTPUT);

    pinMode(trig, OUTPUT);

    pinMode(buzz, OUTPUT);

    Serial.begin(9600);

}


void loop()

{

    int duration,distance;

    digitalWrite(trig, HIGH);

    delay(1);

    digitalWrite(trig, LOW);

    duration=pulseIn(echo,HIGH);

    distance=(duration/2)/29.1;

    if(distance<=50&&distance>=0)

    {

        digitalWrite(buzz, HIGH);

    }

}
```

```
else  
  
{  
    digitalWrite(buzz, LOW);  
}  
  
delay(60);  
  
pir=digitalRead(2);  
  
if(pir==1)  
{  
    digitalWrite(13, HIGH);  
    Serial.println("Motion detected");  
}  
  
else  
  
{  
    digitalWrite(13, LOW);  
    Serial.println("Motion not detected");  
}  
  
}
```

SIMULATION:

