

Build a smart home in wokwi with minimum 2 sensors, led, buzzer

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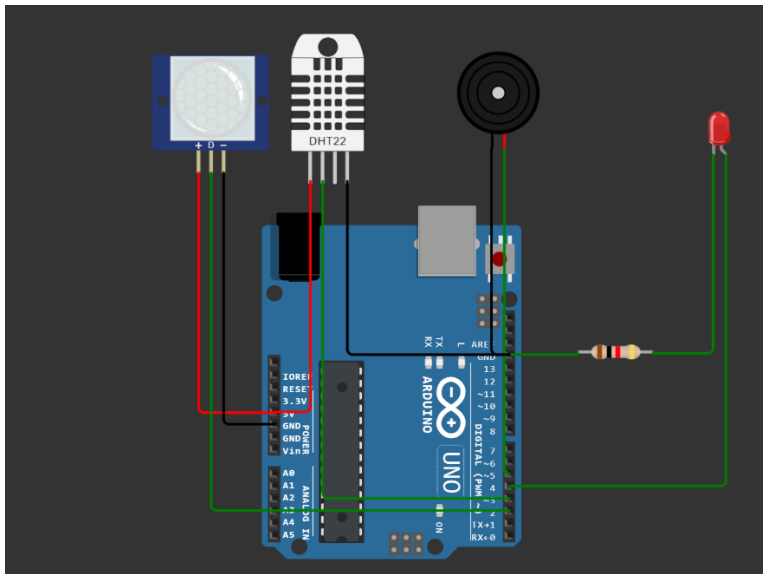
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To build a smart home in wokwi , we actually some components and code to control them . Below we have provide an example of smart home system by using PIR Sensor for home security, DHT22 for detecting the temperature and humidity, led to indicate the status of the system and finally buzzer to sounds an alarm when some motion is detected.



Wokwi link:

<https://wokwi.com/projects/363065125808037889>

Code:

```
#include <DHT.h>
```

```
#define DHTPIN 2    // DHT22 sensor pin
```

```
#define DHTTYPE DHT22  // DHT22 sensor type
```

```
DHT dht(DHTPIN, DHTTYPE);
```

```
const int pirSensorPin = 3; // PIR sensor pin
```

```
const int ledPin = 4;    // LED pin
```

```
const int buzzerPin = 5; // Buzzer pin
```

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```
void setup() {  
  pinMode(pirSensorPin, INPUT);  
  pinMode(ledPin, OUTPUT);  
  pinMode(buzzerPin, OUTPUT);  
  
  Serial.begin(9600);  
  dht.begin();  
}  
  
void loop() {  
  int pirSensorReading = digitalRead(pirSensorPin);  
  
  if (pirSensorReading == HIGH) {  
    digitalWrite(ledPin, HIGH);  
    digitalWrite(buzzerPin, HIGH);  
    delay(500);  
    digitalWrite(ledPin, LOW);  
    digitalWrite(buzzerPin, LOW);  
  }  
  
  float temperature = dht.readTemperature();  
  float humidity = dht.readHumidity();  
  
  Serial.print("Temperature: ");  
  Serial.print(temperature);  
  Serial.print("C, Humidity: ");  
  Serial.print(humidity);  
  Serial.println("%");
```

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```
delay(1000);  
}
```