ASSIGNMENT 1

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QUESTION : Home automation by using IOT in TINKER CAD

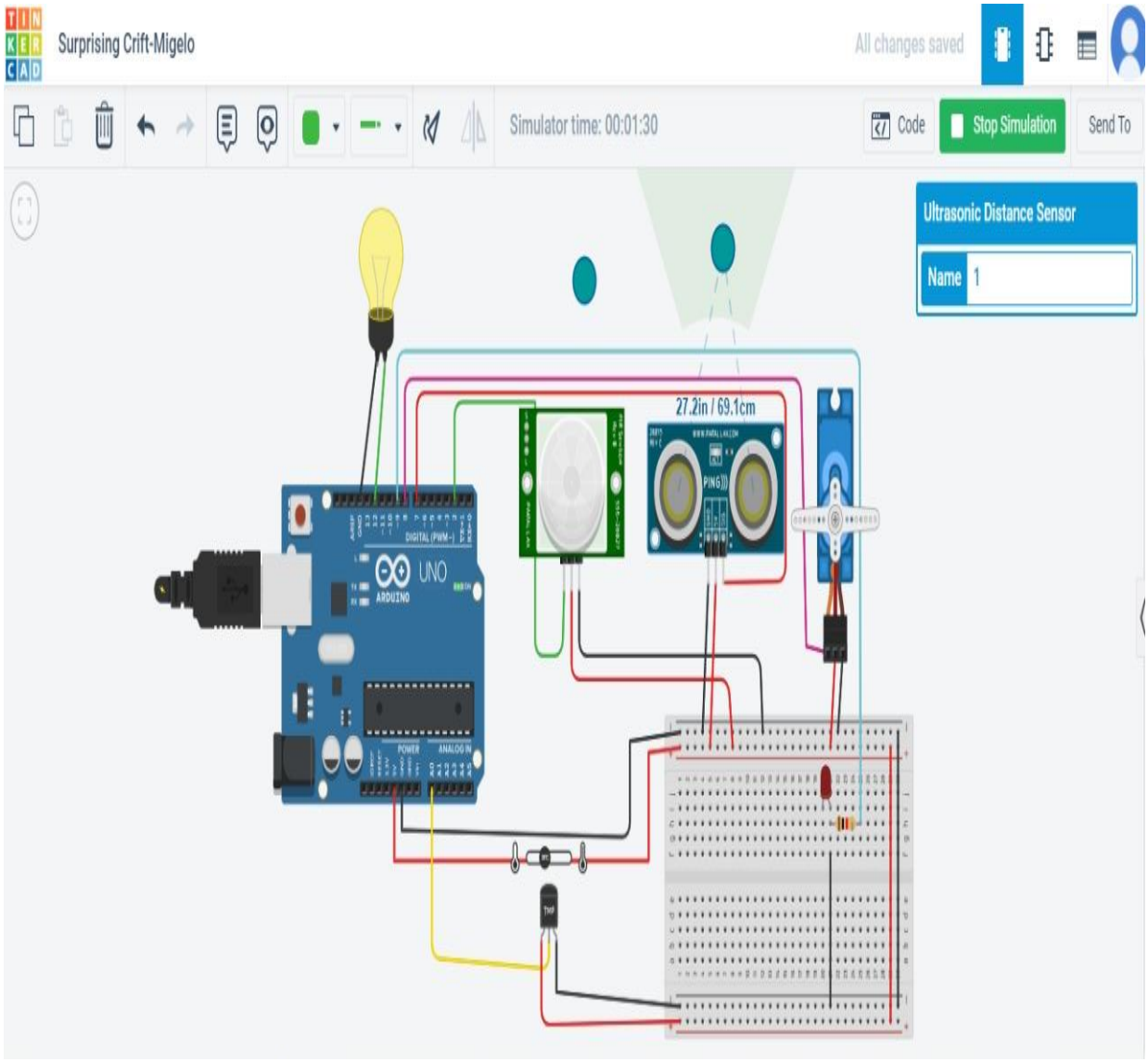
Code:

```
// C++ code
//
#include <Servo.h>

int dist = 0;

int read_digital_pin = 0;

int read_digital_pin_2 = 0;

int my_2 = 0;

int pin = 0;

int read = 0;

int digital_pin = 0;

long readUltrasonicDistance(int triggerPin, int echoPin)
```

```
{
  pinMode(triggerPin, OUTPUT);  // Clear the trigger
  digitalWrite(triggerPin, LOW);
  delayMicroseconds(2);
  // Sets the trigger pin to HIGH state for 10 microseconds
  digitalWrite(triggerPin, HIGH);
  delayMicroseconds(10);
  digitalWrite(triggerPin, LOW);
  pinMode(echoPin, INPUT);
  // Reads the echo pin, and returns the sound wave travel time in microseconds
  return pulseIn(echoPin, HIGH);
}

Servo servo_8;

void setup()
{
  servo_8.attach(8, 500, 2500);
  pinMode(2, INPUT);
  pinMode(12, OUTPUT);
  pinMode(A0, INPUT);
  pinMode(9, OUTPUT);
}

void loop()
{
  dist = 0.01723 * readUltrasonicDistance(7, 7);
  if (dist <= 100) {
    servo_8.write(90);
```

```
  delay(1000); // Wait for 1000 millisecond(s)
 } else {
  servo_8.write(0);
  delay(1000); // Wait for 1000 millisecond(s)
 }
 if (digitalRead(2) == 1) {
  digitalWrite(12, HIGH);
  delay(1000); // Wait for 1000 millisecond(s)
 } else {
  digitalWrite(12, LOW);
  delay(1000); // Wait for 1000 millisecond(s)
 }
 if (analogRead(A0) > 300) {
  digitalWrite(9, HIGH);
  delay(1000); // Wait for 1000 millisecond(s)
 } else {
  digitalWrite(9, LOW);
  delay(1000); // Wait for 1000 millisecond(s)
 }
}
```

TINKER CAD:


Surprising Crift-Migelo
All changes saved
Simulator time: 00:01:30
Code
Stop Simulation
Send To
Ultrasonic Distance Sensor
Name 1
27.2in / 69.1cm
UNO
ARDUINO