

ASSIGNMENT

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:

