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HOME AUTOMATION USING SENSORS

CODE:

```
int trigger_pin = 2;

int echo_pin = 3;

int buzzer_pin = 10;

int time;

int distance;

void setup()

{

    Serial.begin (9600);

    pinMode (trigger_pin, OUTPUT);

    pinMode (echo_pin, INPUT);

    pinMode (buzzer_pin, OUTPUT);

    pinMode (10,OUTPUT);

}

void loop()

{

    digitalWrite(13,HIGH);

    digitalWrite(13,LOW);

    double a = analogRead(A0);

    double c = (((a/1024)*5)-0.5)*100;

    Serial.print("Celsius value: ");
```

```
Serial.println(c);

delay(1000);

digitalWrite (trigger_pin, HIGH);

delayMicroseconds (10);

digitalWrite (trigger_pin, LOW);

time = pulseIn (echo_pin, HIGH);

distance = (time * 0.034) / 2;


if (distance <= 10)

{

    Serial.println (" Door Open ");

    Serial.print (" Distance= ");

    Serial.println (distance);

    digitalWrite (buzzer_pin, HIGH);

    delay (500);

}

else {

    Serial.println (" Door closed ");

    Serial.print (" Distance= ");

    Serial.println (distance);

    digitalWrite (buzzer_pin, LOW);

    delay (500);

}

}
```

CIRCUIT:

