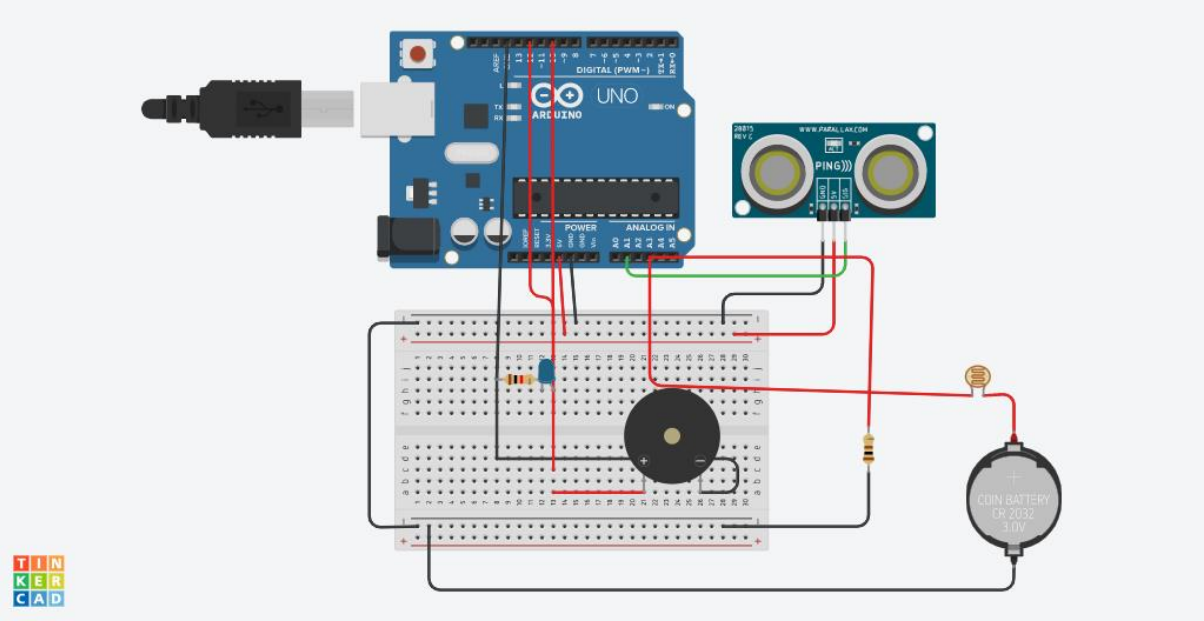

smart_home_simulation1 - Notepad

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```
// C++ code
//
int dist = 0;

int ldr = 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);
}

void setup()
{
  pinMode(A3, INPUT);
  Serial.begin(9600);
  pinMode(12, OUTPUT);
  pinMode(10, OUTPUT);
}

void loop()
{
  dist = 0.01723 * readUltrasonicDistance(A1, A1);
  ldr = analogRead(A3);
  Serial.println(dist);
  if (dist < 100) {
    digitalWrite(12, HIGH);
  } else {
    digitalWrite(12, LOW);
    if (ldr > 50) {
      digitalWrite(10, HIGH);
    } else {
      digitalWrite(10, LOW);
    }
  }
  delay(10); // Delay a little bit to improve simulation performance
}
```