// Define constants for LED and sound detector pins

const int ledPin = 13; // LED pin

const int soundPin = A0; // Sound detector pin

// Define threshold value for sound detection

const int soundThreshold = 500;

void setup() {

// Initialize LED pin as output

pinMode(ledPin, OUTPUT);

// Initialize sound detector pin as input

pinMode(soundPin, INPUT);

}

void loop() {

// Read sound detector value

int soundValue = analogRead(soundPin);

// Check if sound value exceeds threshold

if (soundValue > soundThreshold) {

// Turn on LED

digitalWrite(ledPin, HIGH);

} else {

// Turn off LED

digitalWrite(ledPin, LOW);

}

// Add a delay for LED blinking effect

delay(50);

}

```

.