

# **Data Acquisition**

## **Mall Door**

ID: 4715

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Group: 3

Section: 1

## Arduino code

```
#include<LiquidCrystal.h>

LiquidCrystal lcd(12,11,10,9,8,7);

int ir=1,o=2,c=3,opening=4,closing=5;


void setup() {lcd.begin(16,2);

pinMode(opening,OUTPUT); pinMode(closing,OUTPUT);

pinMode(ir,INPUT); pinMode(o,INPUT); pinMode(c,INPUT);}


void loop() {

if(digitalRead(ir) && !digitalRead(o)){digitalWrite(opening,HIGH);digitalWrite(closing,LOW);

lcd.clear();lcd.setCursor(1,0);lcd.print("Opening");}


else if (!digitalRead(ir) &&
!digitalRead(c)){digitalWrite(closing,HIGH);digitalWrite(opening,LOW);

lcd.clear();lcd.setCursor(1,0);lcd.print("Closing");}


else if (digitalRead(o) && digitalRead(ir)){digitalWrite(closing,LOW);digitalWrite(opening,LOW);

lcd.clear();lcd.setCursor(1,0);lcd.print("Fully Opened");}


else if (digitalRead(c) && !digitalRead(ir)){digitalWrite(closing,LOW);digitalWrite(opening,LOW);

lcd.clear();lcd.setCursor(1,0);lcd.print("Fully Closed");}


while (digitalRead(c) && digitalRead(o)){digitalWrite(closing,LOW);digitalWrite(opening,LOW);

lcd.clear();lcd.setCursor(1,0);lcd.print("Sensors Problem");}

}
```

```

Arduino IDE - Arduino 1.8.5
File Edit Sketch Tools Help

#include <LiquidCrystal.h>
LiquidCrystal lcd(12,11,10,9,8,7);
int ir=1,a=2,c=3,opening=4,closing=5;

void setup() { lcd.begin(16,2);
pinMode(opening,OUTPUT); pinMode(closing,OUTPUT);
pinMode(ir,INPUT); pinMode(a,INPUT); pinMode(c,INPUT); }

void loop() {
if (digitalRead(ir) == 1) {digitalWrite(opening,HIGH);digitalWrite(closing,LOW);
  lcd.clear();lcd.setCursor(1,0);lcd.print("Opening");}

else if (digitalRead(ir) == 0) {digitalWrite(closing,HIGH);digitalWrite(opening,LOW);
  lcd.clear();lcd.setCursor(1,0);lcd.print("Closing");}

else if (digitalRead(a) == 1) {digitalWrite(closing,LOW);digitalWrite(opening,LOW);
  lcd.clear();lcd.setCursor(1,0);lcd.print("Fully Opened");}

else if (digitalRead(c) == 1) {digitalWrite(closing,LOW);digitalWrite(opening,LOW);
  lcd.clear();lcd.setCursor(1,0);lcd.print("Fully Closed");}

while (digitalRead(c) == 1) {digitalWrite(closing,LOW);digitalWrite(opening,LOW);
  lcd.clear();lcd.setCursor(1,0);lcd.print("Sensor Problem");}
}

Data View:
Sketch uses 2214 bytes (68%) of program storage space. Maximum is 32256 bytes.
Global variables use 103 bytes (51%) of dynamic memory, leaving 1945 bytes for local variables. Maximum is 2048 bytes.

```

