#include <Wire.h>

#include <LiquidCrystal\_I2C.h>

LiquidCrystal\_I2C lcd(0x27, 16, 2);

const int IR1 = 2;

const int IR2 = 0;

const int IR3 = 4;

const int IR4 = 6;

const int IR5 = 7;

const int conv\_speed = 3;

const int conv1 = 8;

const int conv2 = 9;

const int soap\_water = 10;

const int fresh\_water = 13;

const int fan = 12;

void setup() {

pinMode(IR1, INPUT);

pinMode(IR2, INPUT);

pinMode(IR3, INPUT);

pinMode(IR4, INPUT);

pinMode(IR5, INPUT);

pinMode(conv\_speed, OUTPUT);

pinMode(conv1, OUTPUT);

pinMode(conv2, OUTPUT);

pinMode(soap\_water, OUTPUT);

pinMode(fresh\_water, OUTPUT);

pinMode(fan, OUTPUT);

lcd.setBacklight(1);

digitalWrite(conv1, HIGH);

digitalWrite(conv2, HIGH);

digitalWrite(soap\_water, HIGH);

digitalWrite(fresh\_water, HIGH);

digitalWrite(fan, HIGH);

analogWrite(conv\_speed, 0);

lcd.begin(16, 2);

lcd.print("Car Wash System");

delay(2000);

lcd.setCursor(0, 0);

Serial.begin(9600);

}

void loop() {

lcd.clear();

lcd.setCursor(0, 0);

lcd.print("Auto Car Washing System");

int a = digitalRead(IR1);

int b = digitalRead(IR5);

Serial.println(a);

if (a == LOW && b == HIGH) {

lcd.clear();

lcd.setCursor(0, 0);

lcd.print("Auto Car Washing System");

lcd.setCursor(0, 1);

lcd.print("Car arrived");

Serial.println("Car arrived");

delay(2000);

analogWrite(conv\_speed, 150);

digitalWrite(conv1, LOW);

digitalWrite(conv2, HIGH);

}

if (a == LOW&&digitalRead(IR3==HIGH) ){

lcd.clear();

lcd.setCursor(0, 0);

lcd.print("Auto Car Washing System");

lcd.setCursor(0, 1);

lcd.print("Cleaning");

Serial.println("Cleaning");

digitalWrite(soap\_water, LOW);

} else {

digitalWrite(soap\_water, HIGH);

}

if (digitalRead(IR3) == LOW) {

lcd.clear();

lcd.setCursor(0, 0);

lcd.print("Auto Car Washing System");

lcd.setCursor(0, 1);

lcd.print("Washing the car");

Serial.println("Washing the car");

digitalWrite(fresh\_water, LOW);

} else {

digitalWrite(fresh\_water, HIGH);

}

if (digitalRead(IR4) == LOW) {

lcd.clear();

lcd.setCursor(0, 0);

lcd.print("Auto Car Washing System");

lcd.setCursor(0, 1);

lcd.print("Drying the car");

Serial.println("Drying the car");

digitalWrite(fan, LOW);

} else {

digitalWrite(fan, HIGH);

}

if (digitalRead(IR5) == LOW && digitalRead(IR1 == HIGH)&& digitalRead(IR3==HIGH)){

lcd.clear();

lcd.setCursor(0, 0);

lcd.print("Auto Car Washing System");

lcd.setCursor(0, 1);

lcd.print("Washing completed");

Serial.println("Washing completed");

digitalWrite(conv1, HIGH);

digitalWrite(conv2, HIGH);

analogWrite(conv\_speed, 0);

delay(1000);

lcd.clear();

lcd.setCursor(0, 1);

lcd.print("Take The Car");

}

delay(500); // Optional delay to make it easier to read on the LCD

}