#include

#include LiquidCrystal lcd(12,11,5,4,3,2);

Servo myservo;

int S1 = 0,

S2 = 0,

S3 = 0;

int flag1 = 0,

flag2 = 0;

void setup() {

lcd.begin(16,2);

lcd.setCursor(5,2);

lcd.print("WELCOME");

delay(500);

lcd.clear();

lcd.setCursor(2,2);

lcd.print("SMART PARKING"); l

cd.setCursor(26,0);

lcd.print("SYSTEM");

delay(500);

lcd.clear();

lcd.setCursor(0,0);

lcd.print("Slot A :");

lcd.setCursor(0,1);

lcd.print("Slot B :");

lcd.setCursor(20,0);

lcd.print("Slot C :");

pinMode(13,INPUT);

pinMode(10,INPUT);

pinMode(9,INPUT);

pinMode(8,INPUT);

pinMode(7,INPUT);

Read\_Sensor();

myservo.attach(6);

myservo.write(90);

}

lcd.print("Full!");

}

Else

{

lcd.setCursor(10,1);

lcd.print("Empty");

}

if(digitalRead(8)==HIGH) {

lcd.setCursor(30,0);

lcd.print("Full!"); }

else {

lcd.setCursor(30,0);

lcd.print("Empty"); }

if(digitalRead(10)==HIGH)

{

lcd.setCursor(10,0)

; lcd.print("Full!");

}

Else {

lcd.setCursor(10,0);

lcd.print("Empty"); }

loop1(); loop2();

loop3(); }

int loop3() {

int slot=3;

if(digitalRead(10)==HIGH && digitalRead(7) == LOW && digitalRead(8)== LOW)

{

slot=slot-1; lcd.setCursor(39,2);

lcd.print(slot); }

else

if(digitalRead(10)==LOW && digitalRead(7) == HIGH && digitalRead(8)== LOW) {

slot=slot-1;

lcd.setCursor(39,2);

lcd.print(slot); }

else if(digitalRead(10)==LOW && digitalRead(7) == LOW && digitalRead(8)== HIGH) {

slot=slot-1;

lcd.setCursor(39,2);

lcd.print(slot); }

else if(digitalRead(10)==HIGH && digitalRead(7) == HIGH && digitalRead(8)== LOW)

{

slot=slot-2;

lcd.setCursor(39,2);

lcd.print(slot); }

else

if(digitalRead(10)==LOW && digitalRead(7) == HIGH && digitalRead(8)== HIGH) {

slot=slot-2;

lcd.setCursor(39,2);

lcd.print(slot); }

else

if(digitalRead(10)==HIGH && digitalRead(7) == LOW && digitalRead(8)== HIGH) {

slot=slot-2;

lcd.setCursor(39,2);

lcd.print(slot); }

else if(digitalRead(10)==HIGH && digitalRead(7) == HIGH && digitalRead(8)== HIGH) {

slot=slot-3;

lcd.setCursor(39,2);

lcd.print(slot); }

else if(digitalRead(10)==LOW && digitalRead(7) == LOW && digitalRead(8)== LOW) {

lcd.setCursor(39,2);

lcd.print(slot); }

return slot; }

int loop2() {

int slot=3;

if (digitalRead (13) == 1 && flag1 == 0) {

flag1 = 1;

if (flag2 == 0) {

myservo.write(0);

} }

if (digitalRead (9) == 1 && flag2 == 0) {

flag2 = 1; if (flag1 == 0)

{ myservo.write(0);

} }

int slot1=loop3();

if(slot1<=0) {

myservo.write(90); }

if (flag1 == 1 && flag2 == 1) {

delay (1000);

myservo.write(90);

flag1 = 0, flag2 = 0;

} }

int loop1() {

if(digitalRead(7) ||

digitalRead(8) ||

digitalRead(10)==LOW) {

lcd.setCursor(20,2);

lcd.print("Parking Available : "); } }

void Read\_Sensor() {

S1 = 0, S2 = 0, S3 = 0;

if (digitalRead(10) == 1) {

S1 = 1; }

if (digitalRead(7) == 1)

{

S2 = 1;

}

if (digitalRead(8) == 1)

{

S3 = 1;

}

}