/\* Code for Arduino Uno \*/

#include <SoftwareSerial.h>

#include <Servo.h>

SoftwareSerial nodemcu(2, 3);

int parking1\_slot1\_ir\_s = 4;

int parking1\_slot2\_ir\_s = 5;

int parking1\_slot3\_ir\_s = 6;

int parking1\_slot4\_ir\_s = 7;

const int analogInPin0 = A0;

//const int analogInPin1 = A1;

int sensorValue1 = 0;

int sensorValue2 = 0;

int servoPin1 = 8;

int servoPin2 = 9;

int i = 0;

Servo servo1;

Servo servo2;

String sensor1;

String sensor2;

String sensor3;

String sensor4;

String cdata = "";

void setup()

{

Serial.begin(9600);

nodemcu.begin(9600);

pinMode(parking1\_slot1\_ir\_s, INPUT);

pinMode(parking1\_slot2\_ir\_s, INPUT);

pinMode(parking1\_slot3\_ir\_s, INPUT);

pinMode(parking1\_slot4\_ir\_s, INPUT);

servo1.attach(servoPin1);

servo2.attach(servoPin2);

}

void loop()

{

sensorValue1 = analogRead(analogInPin0);

if (sensorValue1 < 600)

{

for (int i = 0; i <= 90; i++)

{

servo1.write(i);

delay(30);

}

}

servo1.write(i);

sensorValue2 = analogRead(analogInPin1);

if (sensorValue2 < 600)

{

for (int i = 0; i <= 90; i++)

{

servo2.write(i);

delay(30);

}

}

servo2.write(i);

p1slot1();

p1slot2();

p1slot3();

p1slot4();

cdata = cdata + sensor1 + "," + sensor2 + "," + sensor3 + "," + sensor4 + ",";

Serial.println(cdata);

nodemcu.println(cdata);

delay(3000); // 100 milli seconds

cdata = "";

digitalWrite(parking1\_slot1\_ir\_s, HIGH);

digitalWrite(parking1\_slot2\_ir\_s, HIGH);

digitalWrite(parking1\_slot3\_ir\_s, HIGH);

digitalWrite(parking1\_slot4\_ir\_s, HIGH);

}

void p1slot1()

{

if ( digitalRead(parking1\_slot1\_ir\_s) == LOW)

{

sensor1 = "255";

delay(200);

}

if ( digitalRead(parking1\_slot1\_ir\_s) == HIGH)

{

sensor1 = "0";

delay(200);

}

}

void p1slot2()

{

if ( digitalRead(parking1\_slot2\_ir\_s) == LOW)

{

sensor2 = "255";

delay(200);

}

if ( digitalRead(parking1\_slot2\_ir\_s) == HIGH)

{

sensor2 = "0";

delay(200);

}

}

void p1slot3()

{

if ( digitalRead(parking1\_slot3\_ir\_s) == LOW)

{

sensor3 = "255";

delay(200);

}

if ( digitalRead(parking1\_slot3\_ir\_s) == HIGH)

{

sensor3 = "0";

delay(200);

}

}

void p1slot4()

{

if ( digitalRead(parking2\_slot1\_ir\_s) == LOW)

{

sensor4 = "255";

delay(200);

}

if ( digitalRead(parking2\_slot1\_ir\_s) == HIGH)

{

sensor4 = "0";

delay(200);

}

}