#include <AFMotor.h>

#include <SoftwareSerial.h>

SoftwareSerial bluetoothSerial(9, 10); // RX, TX

//initial motors pin

AF\_DCMotor motor1(1, MOTOR12\_1KHZ);

AF\_DCMotor motor2(2, MOTOR12\_1KHZ);

AF\_DCMotor motor3(3, MOTOR34\_1KHZ);

AF\_DCMotor motor4(4, MOTOR34\_1KHZ);

int l\_f\_i\_r\_p\_s = 14;

int r\_f\_i\_r\_p\_s = 15;

int l\_b\_i\_r\_p\_s = 16;

int r\_b\_i\_r\_p\_s = 17;

char command;

void setup()

{

bluetoothSerial.begin(9600); //Set the baud rate to your Bluetooth module.

Serial.begin(9600);

motor1.setSpeed(160);

motor2.setSpeed(160);

motor3.setSpeed(160);

motor4.setSpeed(160);

}

void loop() {

if (bluetoothSerial.available() > 0) {

command = bluetoothSerial.read();

Serial.println(command);

Stop(); //initialize with motors stopped

switch (command) {

case 'F':

front();

break;

case 'B':

back();

break;

case 'L':

left();

break;

case 'R':

right();

break;

}

}

}

void front()

{

if ( digitalRead(l\_f\_i\_r\_p\_s) == HIGH && digitalRead(r\_f\_i\_r\_p\_s) == HIGH )

{

motor1.run(FORWARD); //rotate the motor clockwise

motor2.run(FORWARD); //rotate the motor clockwise

motor3.run(FORWARD); //rotate the motor clockwise

motor4.run(FORWARD); //rotate the motor clockwise

}

}

void back()

{

if ( digitalRead(l\_b\_i\_r\_p\_s) == HIGH && digitalRead(r\_b\_i\_r\_p\_s) == HIGH )

{

motor1.run(BACKWARD); //rotate the motor anti-clockwise

motor2.run(BACKWARD); //rotate the motor anti-clockwise

motor3.run(BACKWARD); //rotate the motor anti-clockwise

motor4.run(BACKWARD); //rotate the motor anti-clockwise

}

}

void left()

{

if ( digitalRead(l\_f\_i\_r\_p\_s) == HIGH )

{

motor1.run(BACKWARD); //rotate the motor anti-clockwise

motor2.run(BACKWARD); //rotate the motor anti-clockwise

motor3.run(FORWARD); //rotate the motor clockwise

motor4.run(FORWARD); //rotate the motor clockwise

}

}

void right()

{

if ( digitalRead(r\_f\_i\_r\_p\_s) == HIGH )

{

motor1.run(FORWARD); //rotate the motor clockwise

motor2.run(FORWARD); //rotate the motor clockwise

motor3.run(BACKWARD); //rotate the motor anti-clockwise

motor4.run(BACKWARD); //rotate the motor anti-clockwise

}

else

{

// For Buzzer

}

}

void Stop()

{

motor1.run(RELEASE); //stop the motor when release the button

motor2.run(RELEASE); //stop the motor when release the button

motor3.run(RELEASE); //stop the motor when release the button

motor4.run(RELEASE); //stop the motor when release the button

}