#include <SoftwareSerial.h>

SoftwareSerial BT(10, 11); //TX, RX respetively

String readdata;

int motorLpin1=2;

int motorLpin2=3;

int motorRpin1=4;

int motorRpin2=5;

int motorLpwm=10;

int motorRpwm=11;

int motorSpeed=150;

int turn=50;

void setup() {

Serial.begin(9600);

Serial.flush();

pinMode(motorLpin1,OUTPUT);

pinMode(motorLpin2,OUTPUT);

pinMode(motorRpin1,OUTPUT);

pinMode(motorRpin2,OUTPUT);

pinMode(motorLpwm,OUTPUT);

pinMode(motorRpwm,OUTPUT);

}

void loop() {

String input="";

while(Serial.available()){

input+=(char)Serial.read();

delay(5);

}

if(input=="front"){

fwd();

}

else if(input=="stop"){

stp();

}

else if(input=="back"){

rev();

}

else if(input.indexOf("left")>-1){

lft();

}

else if(input.indexOf("right")>-1){

rght();

}

else if(input!=""){

motorSpeed=input.toInt();

}

}

void fwd(){

analogWrite(motorLpwm,motorSpeed);

analogWrite(motorRpwm,motorSpeed);

digitalWrite(motorLpin1,1);

digitalWrite(motorLpin2,0);

digitalWrite(motorRpin1,1);

digitalWrite(motorRpin2,0);

}

void rev(){

analogWrite(motorLpwm,motorSpeed);

analogWrite(motorRpwm,motorSpeed);

digitalWrite(motorLpin1,0);

digitalWrite(motorLpin2,1);

digitalWrite(motorRpin1,0);

digitalWrite(motorRpin2,1);

}

void lft(){

analogWrite(motorLpwm,motorSpeed-turn);

analogWrite(motorRpwm,motorSpeed+turn);

digitalWrite(motorLpin1,0);

digitalWrite(motorLpin2,1);

digitalWrite(motorRpin1,1);

digitalWrite(motorRpin2,0);

}

void rght(){

analogWrite(motorLpwm,motorSpeed+turn);

analogWrite(motorRpwm,motorSpeed-turn);

digitalWrite(motorLpin1,1);

digitalWrite(motorLpin2,0);

digitalWrite(motorRpin1,0);

digitalWrite(motorRpin2,1);

}

void stp(){

analogWrite(motorLpwm,0);

analogWrite(motorRpwm,0);

digitalWrite(motorLpin1,1);

digitalWrite(motorLpin2,1);

digitalWrite(motorRpin1,1);

digitalWrite(motorRpin2,1);

}

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