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ELEC1100 Your Lab#06 & Project Template

To program the car tracking the white line on a dark mat

Your Name:

Student ID:

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// assign meaningful names to those pins that will be used

#define pinLeftSensor A5 //pin A5

#define pinRightSensor A3 //pin A3

#define pinLdir 11 //pin D11

#define pinRdir 12 //pin D12

#define pinPWM\_L 10 //pin D10

#define pinPWM\_R 9 //pin D9

//define variables to be used in script

int leftSensor = 1;

int rightSensor = 1;

// the setup function runs once when you press reset or power the board

void setup ()

{

// define pins as input and output.

pinMode(pinLeftSensor, INPUT);

pinMode(pinRightSensor, INPUT);

pinMode(pinLdir, OUTPUT);

pinMode(pinRdir, OUTPUT);

pinMode(pinPWM\_L, OUTPUT);

pinMode(pinPWM\_R, OUTPUT);

// initialize output pins.

digitalWrite(pinLdir, HIGH);

digitalWrite(pinRdir, HIGH);

}

// the loop function runs over and over again forever

void loop()

{

analogWrite(pinPWM\_L, 255);

analogWrite(pinPWM\_R, 255);

leftSensor = digitalRead(pinLeftSensor);

rightSensor = digitalRead(pinRightSensor);

if ( leftSensor && rightSensor ) {

digitalWrite(pinLdir, ???);

digitalWrite(pinRdir, ???);

}

if ( !leftSensor && rightSensor ) {

digitalWrite(pinLdir, ???);

digitalWrite(pinRdir, ???);

}

if ( leftSensor && !rightSensor ) {

digitalWrite(pinLdir, ???);

digitalWrite(pinRdir, ???);

}

if ( !leftSensor && !rightSensor ) {

digitalWrite(pinLdir, ???);

digitalWrite(pinRdir, ???);

}

}