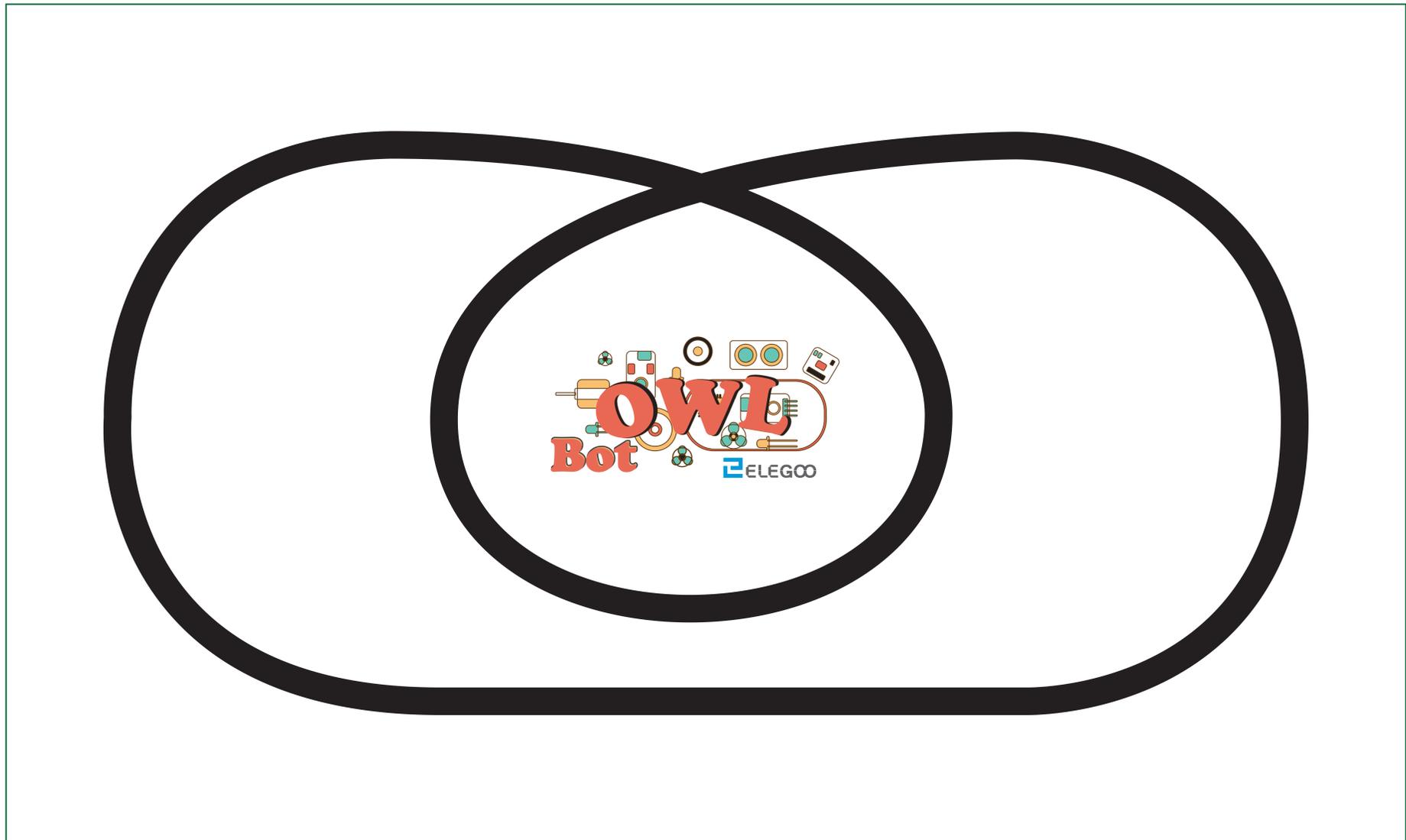


1000*600mm



PANTONE 7626UP

Material List 1

- Tires * 2PCS
- Expression Panel * 1PC
- Ultrasonic Sensor * 1PC
- Line-tracking Module * 1PC
- LED Dot Matrix Module * 1PC
- Cell Box(Lithium Battery Included) * 1PC
- Car Body * 1PC
- Control Board * 1PC
- M4 Nuts * 2 PCS
- M2.5 Nuts * 5PCS (1 for spare)
- Motor * 2PCS
- Universal Wheel * 1PC
- M4*12 Phillips Screw * 13PCS (1 for spare)
- M2.5*15 Phillips Screw * 4PCS
- M2.5*25 Phillips Screw * 4PCS
- M2*6 Phillips Screw * 3PCS (1 for spare)
- M4*12 Phillips Screw * 2PCS
- M4 Nuts * 2 PCS
- Ultrasonic Sensor * 1PC
- Line-tracking Module * 1PC
- LED Dot Matrix Module * 1PC
- Cell Box(Lithium Battery Included) * 1PC
- Car Body * 1PC
- Control Board * 1PC
- M4 Nuts * 2 PCS
- M2.5 Nuts * 5PCS (1 for spare)
- Motor * 2PCS
- Universal Wheel * 1PC
- M4*12 Phillips Screw * 13PCS (1 for spare)
- M2.5*15 Phillips Screw * 4PCS
- M2.5*25 Phillips Screw * 4PCS
- M2*6 Phillips Screw * 3PCS (1 for spare)
- RJ25 Cable * 3PCS
- USB Cable * 1PC
- Phillips Screwdriver * 1PC

Install Tires 4

1 M2.3*8 Self-tapping Screw * 2PCS
2 Tires * 2PCS

Take 1 out from bag No. 1

Install Ultrasonic Sensor 7

1 M4*12 Phillips Screw * 2PCS
2 M4 Nuts * 2 PCS
3 Ultrasonic Sensor * 1PC

Take 1 out from bag No. 2

Notice: The ultrasonic sensor is installed behind the expression panel.

Connect the other one RJ25 cable to the ultrasonic sensor.

Wiring Diagram 10

1 Left Motor
2 Tracking Module
3 LED Dot Matrix Module
4 Ultrasonic Sensor
5 Battery Box
6 Right Motor

Connect Tracking Module to Interface 1. Connect LED Dot Matrix Module to Interface 3. Ultrasonic Module can be connected to any one of the Interface 1 - 4. Then connect the wire of each module to the control board.

Using Tutorial 14

Notice: We have uploaded some necessary programs before, thus you can skip uploading the programs. However, if you change the codes, you will need to reupload them.

First of all, please go to our website below to download the OwlBot tutorials: <http://www.elegoo.com/download/>

The factory program is located at "Lesson 1 OwlBot (OwlBot_driver)". And then select the correct tutorial files based on the computer system you use.

For windows system, please refer to "For Windows Lesson 1 Setting up development environment.pdf". For OS system, please refer to "For Mac Lesson 1 Setting up development environment.pdf".

Function Introduction:

- When the power switch is turned on, OwlBot must be placed steadily, so as to avoid the inaccurate detection of the sensor due to its unstable standing in non-ideal performance of the sensor.
- After the power switch is turned on, 5 RGB flash out the effect of a running light and ring out start-up music.

Line-tracking Mode

The first time you press the mode switch button, the RGB green light is always on, and the expression panel shows an expression indicating that it has entered the tracking mode and OwlBot will follow along the black track. When the sensor on the tracking module senses the black line, the expression panel displays another expression. When OwlBot is picked up under tracking mode, the wheel stops turning.

Obstacle-avoidance Mode

The second time the mode switch button is pressed, the RGB yellow light is normally on, the expression panel displays an expression, the OwlBot goes straight. And when there are obstacles within 25cm, the expression panel will display the other expression, and the OwlBot automatically avoids obstacle ahead, and looks for an obstacle-free route to continue moving forward.

Standby Mode

Press the mode switch button for the third time to switch to the standby mode and the 3 default expressions are automatically switched.

Mobile Control

STEP1: Install the application. You can download the latest version of the "ELEGOO OwlBot" app on the App Store as well as Google Play.

STEP2: Application Settings. First of all, switch the "BT" button on the OwlBot to "ON".

Open the "ELEGOO OwlBot" App. (Please turn on the mobile GPS when using the app). Click on "OwlBot" Tap the "BT" icon to enter the Bluetooth pairing interface.

Put your phone near to the OwlBot (within 10cm), the app will connect to the OwlBot automatically. You can also open the Bluetooth device list by tapping the menu icon in the upper left corner and select the OwlBot for pairing.

After the OwlBot is successfully connected, the Bluetooth status icon changes from red to brown.

Click on "Robot Control" to enter the control interface.

Robot Control

- Expression Control Mode: Control OwlBot forward and backward, turn left and turn right.
- Line Control Mode: Please refer to the previous "Function Introduction" for the specific performance of the obstacle avoidance mode, the tracking mode and the standby mode.
- Light Control Mode: Select a color in the color ring, both the upper-left corner of the program window and the RGB on the OwlBot can display the currently selected color, "+" and "-" adjust the brightness of the light.
- Sound Control Mode: You can make the car sound of basic syllables just by playing the piano.

Tracking sensor threshold

Because the sensor is greatly affected by the environment, when using the line-tracking mode, you should slightly adjust the threshold of the sensor to make it perform correctly if the OwlBot run out of the runway or perform incorrectly. (The default factory threshold is 700.)

Install the Motor 2

1 M2.5*15 Phillips Screw * 4PCS
2 M2.5 Nuts * 4PCS
3 Motor * 2PCS

Take 1 out from bag No. 1

Install Line-Tracking Module 5

1 M4*12 Phillips Screw * 2PCS
2 Line-tracking Module * 1PC
3 Universal Wheel * 1PC

Take 1 out from bag No. 2

Install Copper Cylinder 8

1 M4*12 Single-pass Copper Cylinder * 4PCS

Take 1 out from bag No. 2

Install the Main Control Board 11

1 M4*12 Phillips Screw * 2PCS
2 Control Board * 1PC

Take 1 out from bag No. 2

Wiring 9

1 Left Motor Line
2 Tracking Module Line
3 Ultrasonic Sensor Line
4 Right Motor Line
5 LED Dot Matrix Module Line
6 Battery Box Line

1 RJ25 Cable * 1PC

Pass all the wires through the corresponding hole as shown in the picture.

The Final Image 12

The image on the right shows the other two assembly methods that you can have a try with.

Using Tutorial 13

Reset: Reset Button

BT: Bluetooth and Upload Programs Switch

Button "BT" means Bluetooth and "BT" means uploading program. When connecting to Bluetooth, dial the button to "BT" when uploading the program, dial to "BT".

USB Charging Interface (When charging, the LED next to it is yellow, when fully charged, the LED turns green.)

OFF ON: Power Switch

Battery: Battery interface

Mode: Mode Switching Button

1 M4*12 Phillips Screw * 2PCS
2 LED Dot Matrix Module * 1PC
3 Expression Panel * 1PC

Take 1 out from bag No. 2

Install LED Dot Matrix Module 6

1 M4*12 Phillips Screw * 2PCS
2 LED Dot Matrix Module * 1PC
3 Expression Panel * 1PC

Take 1 out from bag No. 2

Install the Battery Box 3

1 M2*6 Phillips Screw * 2PCS
2 Cell Box(Lithium Battery Included) * 1PC

Take 1 out from bag No. 1

Pass the wire of the battery box through the corresponding hole first, and then install the battery box.

Graphical programming 15

The current project name, click on it to modify.

1 List Buttons, click to show all saved items

2 Click to view the program and description of all graphics modules

3 Press Buttons, click to save the program

4 Play Buttons, click to start executing the program

The entry of the program, only the program module that is connected to the graphics module will be executed after the play button is clicked.

1 Motion: Graphic modules for controlling the movement of the car.

2 Voice & Light: Graphic modules for controlling the sound and light.

3 Sensing: Graphic modules for sensor type electronic components.

4 Variable: Graphic modules for variable operation.

5 Math: Graphic modules for mathematical operations.

6 Control: Graphic modules for controlling program flow.

Precautions 16

- The battery should be fully charged before using. The LED will not work when the battery is low. You can charge the battery through the USB cable.
- OwlBot cannot be used in areas where sunlight or light is strong, infrared ray will have an effect on the sensor or tracking module.
- Under OwlBot obstacle avoidance mode, the lighter the color of obstacles, the better the effect of obstacle.

If you find it is difficult to assemble the OwlBot, please check the assembling manual video here: <http://www.elegoo.com/download/> or <http://www.youtube.com/watch?v=...>

If you have any questions during assembling or using, please feel free to South American customers or service@elegoo.com (Europe and Asian customers).

ELEGOO Team