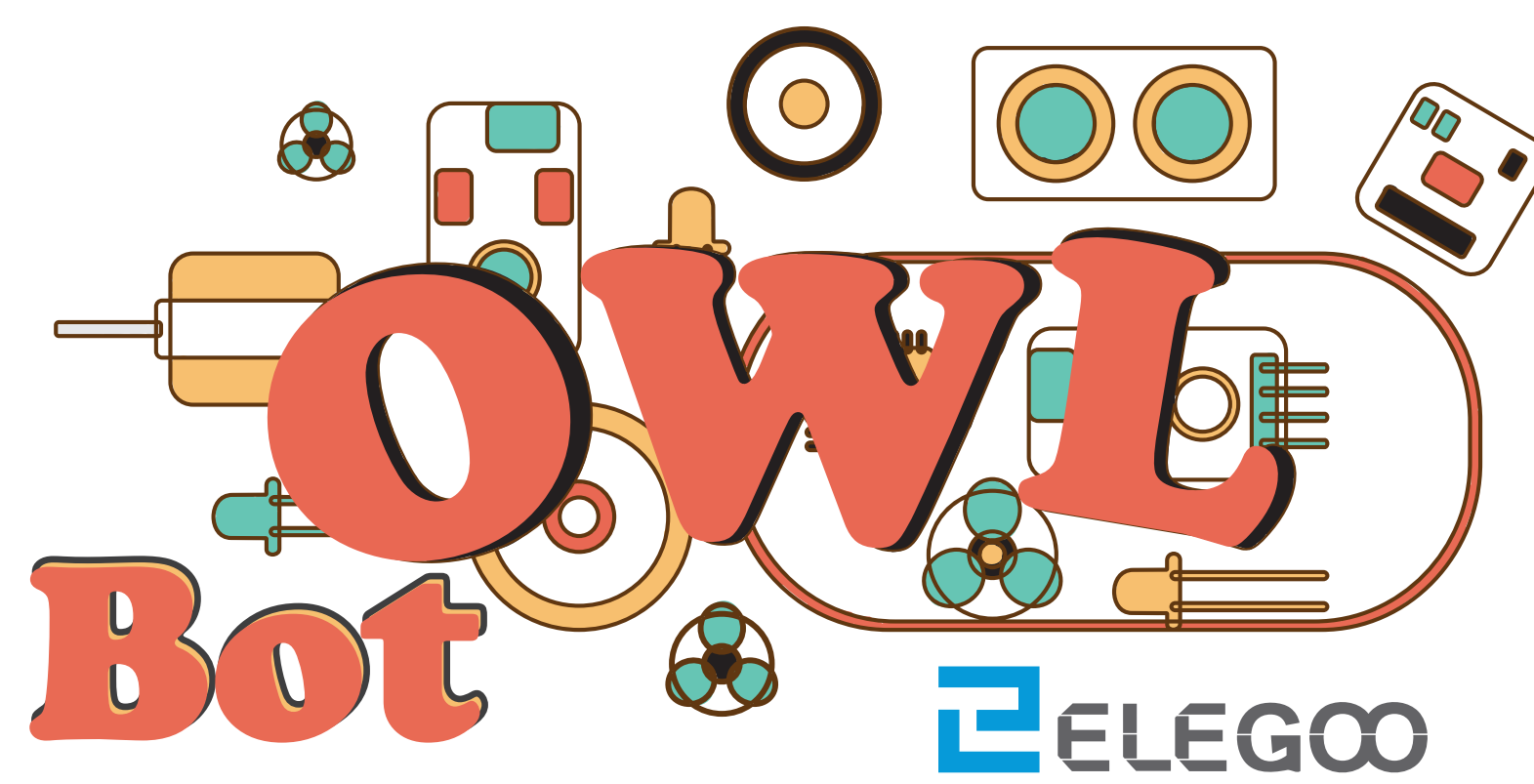


**1000\*600mm**



PANTONE 7626UP

### Material List 1

Tires \*2PCS

Expression Panel \*1PC

Ultrasonic Sensor \*1PC

LED Dot Matrix Module \*1PC

Car Body \*1PC

Control Board \*1PC

Line-tracking Module \*1PC

LED Dot Matrix Module \*1PC

M4 Nuts \*2PCS

M2.5 Nuts \*5PCS (1 for spare)

Motor \*2PCS

Car Body (Lithium Battery Included) \*1PC

RJ25 Cable \*3PCS

USB Cable \*1PC

M4\*12 Phillips Screw \*11PCS (1 for spare)

M2.5\*25 Phillips Screw \*4PCS

M2\*6 Phillips Screw \*3PCS (1 for spare)

M4\*12 Phillips Screw \*4PCS

M2.5 Nuts \*4PCS

Motor \*2PCS

Car Body \*1PC

Universal Wheel \*1PC

Philips Screwdriver \*1PC

### Install the Motor 2

M2.5\*25 Phillips Screw \*4PCS

M4 Nuts \*4PCS

Motor \*2PCS

Car Body \*1PC

Universal Wheel \*1PC

Take ①, ② out from bag No. 1.

### Install the Battery Box 3

M2\*6 Phillips Screw \*2PCS

Cell Box (Lithium Battery Included) \*1PC

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

Take ① out from bag No. 1.

### Install LED Dot Matrix Module 6

RJ25 Cable \*2PCS

M4\*12 Phillips Screw \*2PCS

LED Dot Matrix Module \*1PC

Expression Panel \*1PC

Notice: Pass the two RJ25 cables through the hole on the car board first, and then install the LED dot matrix module.

Connect one of the RJ25 cables to the LED dot matrix module.

Reset: Reset Button

B/L: Bluetooth and Upload Programs Switch

Button "I/O" means Bluetooth and "I/O" means uploading program. When connecting to Bluetooth, click the button to "I/O" when uploading the program, click to "I/O".

②: USB charging interface. When charging, the LED next to it will be green, when fully charged, the LED turns yellow.

OFF DC: Power Switch

Battery: Battery Interface

Mode: Mode Switching Button

Take ① out from bag No. 2.

### Install Tires 4

M2.5\*18 Self-tapping Screw \*2PCS

Tires \*2PCS

Take ① out from bag No. 1.

### Install Line-Tracking Module 5

M4\*12 Phillips Screw \*2PCS

Line-tracking Module \*1PC

Universal Wheel \*1PC

Take ① out from bag No. 2.

### Install Copper Cylinder 8

M4\*12 Phillips Screw \*4PCS

Control Board \*1PC

Take ① out from bag No. 2.

### Wiring 9

RJ25 Cable \*1PC

Left Motor Line

Tracking Module Line

Ultrasonic Sensor Line

Right Motor Line

LED Dot Matrix Module Line

Battery Box Line

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

### Install Ultrasonic Sensor 7

M4\*12 Phillips Screw \*2PCS

M4 Nuts \*2PCS

Ultrasonic Sensor \*1PC

Take ①, ② 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.

### Install the Main Control Board 11

M4\*12 Phillips Screw \*4PCS

Control Board \*1PC

Take ① out from bag No. 2.

### 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

M1 Interface: Connect to the left motor

S1 Interface: Connect to servo (Not equipped with servo)

Interface 1: Connect to tracking module

Interface 2: Connect to ultrasonic sensor

Building block point: Building blocks can be built here to expand a variety of shapes. (Not equipped with building blocks)

M2 Interface: Connect to the right motor

S2 Interface: Connect to servo

Interface 3: Connect to LED dot matrix module

Interface 4: For reserved expansion

USB Interface: For uploading program

### Wiring Diagram 10

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 folder program is located at "Lesson 8 OwlBot: OwlBot: Servo".

And then select the control tutorial files based on the computer system you use.

For window system, please refer to "For Windows Lesson 8 Setting up development environment.pdf".

For OS system, please refer to "For Mac Lesson 8 Setting up development environment.pdf".

Function Introduction

When the power switch is turned on, OwlBot must be placed steadily on a smooth surface and the power switch is turned on, S1 RGB light will be turned on, S1 RGB light will be turned on and start up music.

Mode Switch Buttons

Line-tracking Mode

The first time you press the mode switch button, the RGB red light is always on, and the expression panel shows an expression indicating that it has entered the line-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 during tracking mode, the wheel stops turning.

Obstacle-Avoidance Mode

The second time you press the mode switch button to press, 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 of 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 S default expressions are automatically switched.

Mobile Control

STEPS: Install the application.

You can download the latest version of the "ELEGOO Owl Robot" app on the App Store as well as Google Play.

First of all, switch the "RGB" button on the OwlBot to "I/O".

Open the "ELEGOO OwlBot" App. (Please turn on the mobile GPS when using the app).

Click on "OwlBot", Tap the "I/O" icon to enter the Bluetooth searching interface.

Put your phone near to the OwlBot (within 10m), 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 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

Control OwlBot forward and backward, turn left and turn right. Please refer to the previous "Function Introduction" for the specific performance of the obstacle avoidance mode, the tracking mode and the standby mode.

Line Control Mode

Obstacle-Avoidance Mode

Line-tracking Mode

Tracking Sensor Threshold

Line Control mode: First click the start icon, then click a point on the screen and click another point to make them connected into a line, then the car will follow the direction of the line. When you operate this function, turn the car to the right, keeping it parallel to your phone.

Obstacle-Avoidance Mode: First click the start icon, then click a point on the screen and click another point to make them connected into a line, then the car will follow the direction of the line. When you operate this function, turn the car to the right, keeping it parallel to your phone.

Sound Control mode: You can make the car sound of basic syllables just like playing the piano.

Tracking sensor threshold: Because the sensor is greatly affected by the environment, when using the line-tracking mode, you should 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.)

### Graphical programming 15

The current project name, click on it to modify.

Left Button, click on all used items

Click to save the project you edited

Description of all projects menu

Place Buttons, click to pause the program

Place Buttons, click to restart the program

The entry of the program, any the program module that the graphics module will be executed after the left button is clicked

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

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

► Sensing: Graphic modules for sensor type electronic components.

► Variable: Graphic modules for variable operation.

► Math: Graphic modules for Mathematical operations.

► Control: Graphic modules for controlling program flow.

### Precautions 16

► The battery should be fully charged before using. The RGB will blink 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 sensors on tracking module.

► Under OwlBot obstacle avoidance mode, the higher the obstacle is, the better the effect of obstacle avoidance.

► If you find it is difficult to assemble the OwlBot, please check the assembled tutorial video from <http://www.elegoo.com/download/> or <http://www.elegoo.com/faq/>.

► If you have any question during assembling or testing, please feel free to contact us via email: [sales@elegoo.com](mailto:sales@elegoo.com) or [service@elegoo.com](mailto:service@elegoo.com) (English and Chinese).

► ELEGOO Team