Panda TMax

Smart Panda Tracking Car

User manual

SCORPIO

Category

1 Getting Started

Welcome to Panda TMax, the smart robot band that helps you reach your goal in style.

1.1 What you'll find in the box

Your Panda TMax includes:

Figure 1: Panda TMax   Figure 2: Camera

The camera can be swapped for other colors and materials sold separately.

1.2 What's in this document

We get you started quickly by creating a Bluetooth account and making sure the user interface on your Bluetooth SPP application can transfer the data correctly. The Bluetooth SPP application is where you'll set goals, read message of the product and much more. As soon as you're done setting up your application, you're ready to start moving. Next, we explain how to find and use the features that interest you and adjust your preferences. To find more information, tips, and troubleshooting, please browse our website at http://scorpio.s1.natapp.cc/.

2 Setting up your Panda TMax

For the best experience we recommend using the Bluetooth SPP app for iOS, Android, or Windows 10. If you don't have a phone or tablet, you can also use a Bluetooth enabled Windows 10 PC or Mac.

To get started:

    1. Make sure the Bluetooth SPP app is compatible with your phone or tablet by checking http://scorpio.s1.natapp.cc/.

    2. Find the Bluetooth SPP app in one of these locations, depending on your device:

        • The Apple App Store for iOS devices such as an iPhone or iPad.

        • The Google Play Store for Android devices such as the Samsung Galaxy S5 and Motorola Droid Turbo.

    • The Microsoft Store for Windows 10 devices such as the Lumia phone or Surface tablet.

3. Install the app. Note that if you don't have an account with the store you'll be required to create one before you can download the app.

4. When the app is installed, open it and click "edit mode" to be guided through a series of questions that help you design your command interface, and here is the messages tablet.

Mode	Function	Data Design
Automatic Tracking	The car follows the motion of the moving object within 50cm.	1
Obstacle Avoidance	The car evades objects in 50cm	2
Infrared remote control	The car controls the movement of small cars by Infrared remote controller.	3
Track Following	The car goes along the fixed track designed according to the customers' needs.	4
Go	The car moves forward.	5
Back	The car moves backward.	6
Turn Left	The car turns left.	7
Turn Right	The car turns right.	8
Stop	The car stops.	9
Clockwise	The car moves clockwise.	a
Counterclockwise	The car moves counterclockwise.	b
Music Play	The speaker plays the music.	c
Environment Monitor	The data of temperature and humidity is sent to the interface.	d
Light On	The car turns on the lights.	e
Light Off	The car turns off the lights.	f

Table1：messages tablet

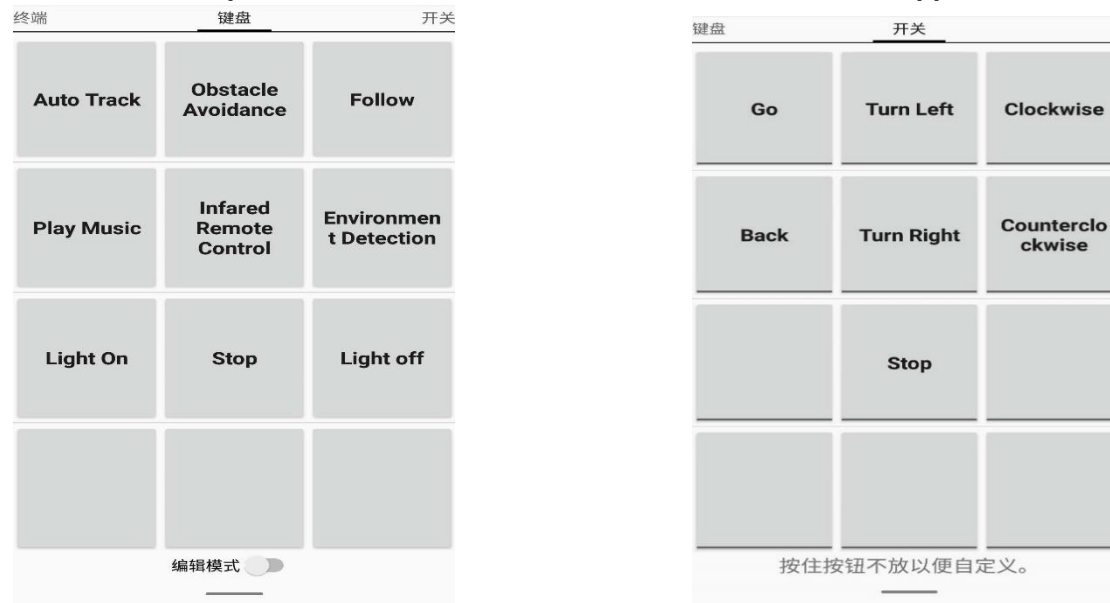**Here is an example of a recommended interface on Bluetooth SPP app:**

Figure 3: Interface on app

3 Getting to know your Panda TMax

3.1 Product overview

This section tells you how best to use the product. If you bought an accessory camera, you'll also find instructions for installing it.

1. Infrared Ranging Sensor
2. Place Camera
3. E18-D50NK Infrared Obstacle Avoidance Sensor
4. Infrared Obstacle Avoidance Sensors
5. Temperature and Humidity Sensor
6. Wheels
7. 3.7V Battery Case
8. Lamp
9. 9V Battery Case
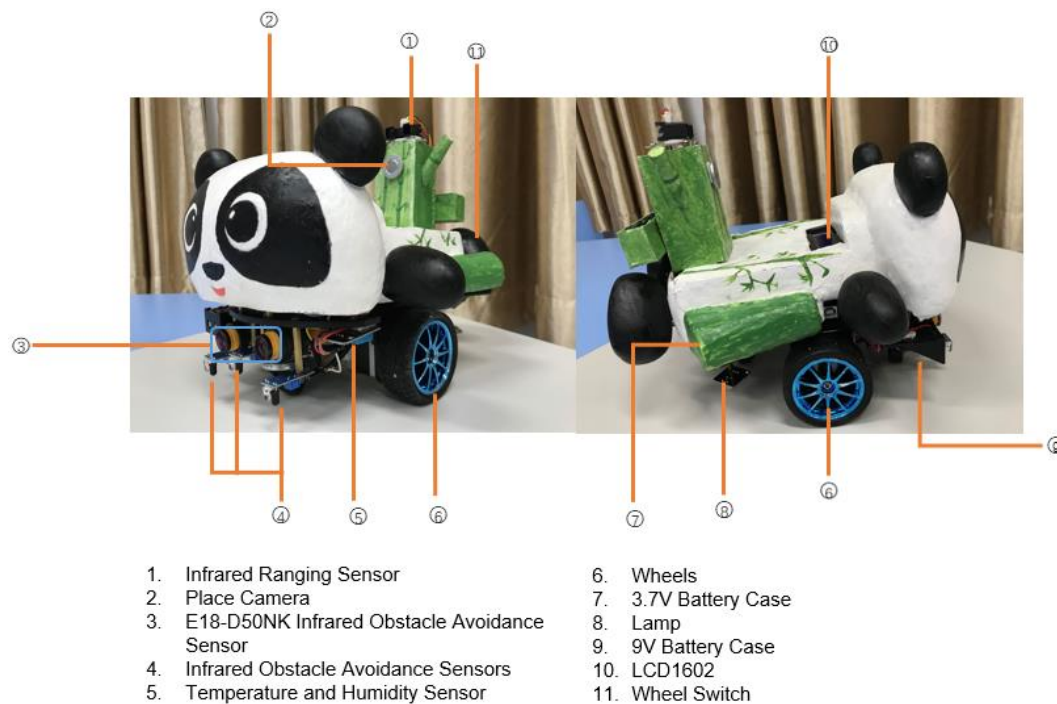10. LCD1602
11. Wheel Switch

Figure 4: Product description

3.2 Steps to evoke your product:

Safety instructions: Do not touch the car when your hands are wet. In order to avoid electric shock, only use this appliance in a dry place indoors.

- Plug in the car: the maximum voltage of the battery is 3.7V (battery parameter).
- Turn on the wheel switch (11), when LCD screen turn on, the car is in the open state.
- Get the Bluetooth SPP software ready. If not, please go to the section "Setting up your Panda TMax".
- Find the Bluetooth connection option for the interface, and connect with the device. The connection information is here:

Bluetooth Name	Password
56BLUETOOTH	1234

Table2：Bluetooth information

If you want to change the Bluetooth Name and Password, please contact us at http://scorpio.s1.natapp.cc/.

- Select mode: Choosing mode by clicking the corresponding button name you set in section "Setting up your Panda TMax". If you need to enable camera accessories, you can directly turn on the switch behind the camera. For more details about the camera, please browse the website at www.szbvcam.com.
- Close the car: click Stop and close the wheel switch.

3.3 Mode overview

3.3.1 Automatic tracking with Panda TMax

Your Panda TMax continuously tracks a variety of stats whenever you have the corresponding button on. The information is transferred to the LCD screen in real time.

Press the button to wake up auto-tracking function. The screen will show the stats blow in real time:

Figure 5: Automatic Tracking

- distance between the car and the tracked object
- operating time
- tracking states

There are 3 tracking states in all:

Message on the screen	Corresponding state	Car motion
Stop	Object is within the safety distance.	The car stops.
Find	Object is at the safety distance.	The car continues tracking the object.
Lost	Object isn't detected. (Object can be too far away or moving fast).	The car turns clockwise or counterclockwise to find the tracked object.

Table3：Automatic tracking information

3.3.2 Obstacle Avoidance with Panda TMax

Your Panda TMax automatically avoid obstacle in a random path whenever you have it on. The information is transferred to the LCD screen in real time.

Press the button to wake up obstacle-avoiding function. The screen will show the stats blow in real time:

Figure 6: Obstacle Avoidance

- distance between the car and the tracked object
- operating time
- car states

There are 3 tracking states in all:

Message on the screen	Corresponding state	Car motion
Warn	Object is within the safety distance.	The car moves backward.
Safe	Object is out of the safety distance.	The car moves forward.
Adjust	Object is at the safety distance.	The car turns left or right to avoid obstacles.

Table4：Obstacle avoidance information

3.3.3 Infrared Remote Control with Panda TMax

Your Panda TMax can be controlled by IR controller whenever you have the corresponding button on. The information of mode and operating time are transferred to the LCD screen in real time.

And here is the description of press key:

Press Key	Function	Instruction
1	Go	1
2	Back	2
3	Turn right	3
4	Turn left	4
5	Clockwise	5
6	Counterclockwise	6
7	stop	7

Table5：Infrared remote information

3.3.4 Track Following with Panda TMax

Your Panda TMax can track the elaborated track whenever you have the corresponding button on. The information of mode and operating time are transferred to the LCD screen in real time. The screen will show the stats as below:

Figure 7: Track Following

Our company can provide more track design services. For more information please browse our company website at http://scorpio.s1.natapp.cc/.

3.3.5 Other Basic Control with Panda TMax

The motion of the car can be directly controlled via Bluetooth on Bluetooth SPP app. For more details please return back to the section "Setting up your Bluetooth SPP app on your device". (Figure 3)

4 Troubleshooting

4.1 HOW TO CHANGE THE BATTERY

Your fully charged Panda TMax has a battery life of up to five days. Battery life and charge cycles vary with use and other factors; actual results will vary.

If your battery is low, when you wake up your Panda TMax, you'll see a dark Screen or wheel still after a few seconds.

If you see a dark Screen you'll be unable to communicate with your Bluetooth until you replace the battery for Mega board. Your tracking car continues to track your activity until your battery runs out.

If the wheels cannot work with LCD screen on, open the back battery box and replace battery. Your tracking car continues to track your activity until your battery runs out.

4.2 MY CAR WON'T RESPOND WHEN I PRESS A BUTTON

Please check any one of these situations which may be the cause:

● The Bluetooth is connected correctly. The device should show the message of the state of the connection.

● The button messages are set correctly. More details in section "Setting up your Panda TMax".

● The product has enough power. More details in section "HOW TO CHANGE THE BATTERY".

If you have any more questions, please contact us at http://scorpio.s1.natapp.cc/.