



# Blue-Bot™

Rechargeable, child friendly,  
programmable floor robot



**User Guide**  
[www.fts-group.co.uk](http://www.fts-group.co.uk)

**Age**  
**3+**



**Blue-Bot is a programmable floor robot with a simple, child-friendly layout which is a perfect starting point for teaching control, directional language and programming to young children.**

Please read all instructions carefully before using and retain the packaging as it contains important information.

## **Pack Contents**

- Blue-Bot.
- User Guide.
- USB charging lead (note that this lead is solely for the purposes of charging Blue-Bot's battery and cannot be used for transferring data).

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# Blue-Bot™

## Know your product



Forward



Backward



90° Left turn



90° Right turn



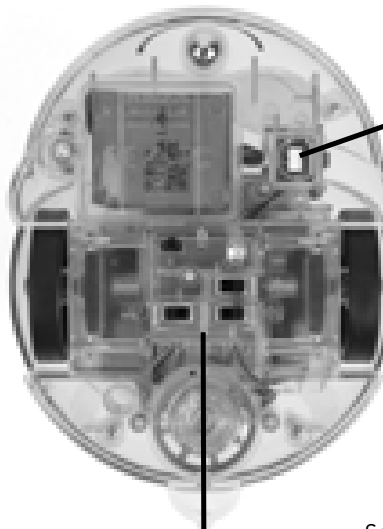
1 second pause



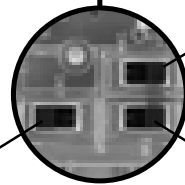
Clear the memory



Start the program



USB Charging Socket



Power OFF/ON

Sensor OFF/ON

Sound OFF/ON



## Compatibility

Blue-Bot will operate with any iOS, Android, Windows or Mac OS X containing compatible Bluetooth hardware. Blue-Bot is compatible with Bluetooth Specification version 3.0/ 4.0 + EDR onwards.

## Pairing

Bluetooth v4.0, Bluetooth Smart and BLE devices should not need to be paired with Blue-Bot. For devices without Bluetooth v.4.0, Smart and BLE the Blue-Bot app will establish a connection when it is needed.

1. Locate the Bluetooth settings on your device.
2. Switch Bluetooth on and search for nearby devices.
3. Turn Blue-Bot on to make it discoverable with your device.
4. Blue-Bot will appear on the list of devices available.
5. Select Blue-Bot on the list to pair with.

Once Blue-Bot has paired it can be controlled from the Blue-Bot app / software.

## Renaming Blue-Bot

Blue-Bot has the default Bluetooth name "Blue-Bot". This name can be changed within the Blue-Bot app settings. Where more than one Blue-Bot is being used in one area it is sensible to change the Bluetooth names. When a name is changed this could be noted on Blue-Bot's underside or perhaps as a small number plate. Using a range of Bluetooth names will make Blue-Bot easier to manage in the classroom.

## Programming Blue-Bot

Blue-Bot has been designed as a simple floor robot.

After initial switch-on, the sequence memory is cleared, pressing <Go> at this point will simply cause a sound to be played and no motion to occur.

The user can press a sequence of commands, which are stored in the sequence memory. A maximum of 200 commands can be stored; each command being either one forward/backward movement, left/right turn, or a pause.

- Each forward or backward command causes the unit to move approx. 150mm in the required direction.
- Each turn command causes the unit to rotate 90°.
- A pause command causes the unit to pause for 1 second.
- When the <Go> button is pressed, the unit will execute all the commands stored in order with a short pause between each command.
- When the command sequence completes, the unit will stop and play a sound. (The sound can be turned on/off using the switch on the underside).
- Pressing <Go > whilst a sequence is running will stop the sequence.

## Blue-Bot Interaction

- To enable the Blue-Bot interaction, ensure all switches on the base are in the 'ON' position. Blue-Bot will recognise another Bee-Bot or Blue-Bot when passing by within a distance of approximately 25cm, environmental conditions such as sunlight and varying temperature can affect this range by +/-10cm. When the sensor is activated Blue-Bot will play a default sound depending on which bot has been detected. The sound will activate every 5 seconds.



- The user can choose to record their own voice on the sensor, so instead of the pre-recorded sound playing when it senses another Bot, it will play the user's recorded sound. To do this press and hold the Go button for 2 seconds until a single beep is heard and record your sound. When the double beep is heard the record time has ended.  
To clear this function press and hold the clear button for 2 seconds until the double beep is heard.
- To turn this function off move the sensor switch on the base to the 'OFF' position.

### **Personalisation for command buttons**

- The user can record 2 seconds of audio for each command simply by pressing the command button for 2 seconds until a single beep is heard. When the double beep is heard the record time has ended. Once recorded, audio will play back as the command buttons are pressed and then again as Blue-Bot works its way through the commands.
- To reset to the original function, simply press the clear button for 2 seconds until a double beep is heard.

### **Programming Blue-Bot using the App**

- Blue-Bot app is available for Android, iOS, Windows 7+ and Mac OS X. The tablet app can be downloaded from Google Play or iTunes. The app for Windows, Mac OS X will be available on the TTS Website.

### **Clearing the Program**

- When the memory in Blue-Bot is full, no more commands can be entered.
- Pressing the clear key <X> will clear the sequence memory.

### **Recharging Blue-Bot**

- Insert the USB cable into the charging socket on the underside of Blue-Bot.
- Connect the other end to a spare USB port on a PC or laptop. Alternatively, connect to a USB charging plug.
- If you have the Blue-Bot docking station, then place Blue-Bot into the docking station and connect the power cable.

- Eyes light up red to show Blue-Bot is charging.
- Eyes change to green when Blue-Bot is fully charged.
- It may take up to 2 hours to fully charge Blue-Bot if the battery has been fully discharged.
- Once fully charged Blue-Bot will have approx. 6 hours of normal usage, approx. 1.5 hours when in continuous use.
- The unit must be switched off to charge to help speed up the charging process.
- To get the best out of Blue-Bots battery life we recommend that the unit is fully charged after every use.
- We also do not recommend that you leave Blue-Bot on continuous charge. Once the eyes turn green please remove from charge.
- We recommend that you give Blue-Bot at least one full charge every 3 months even if it hasn't been used to prevent the battery from deteriorating.

Blue-bot's eyes are used to provide some basic information:

- Solid Blue - connected via Bluetooth.
- Solid Red - Charging.
- Flashing Red - Low battery. Blue-Bot needs charging.
- Solid Green - Fully charged.

## **Low Power Sleep Mode**

- If your Blue-Bot is not used for 2 minutes and the sensor switch is in the 'OFF' position, Blue-Bot will play a sound and go into sleep mode.
- If your Blue-Bot is not used for 4 minutes and the sensor switch is in the 'ON' position, Blue-Bot will play a sound and go into sleep mode.
- In sleep mode, very little power is consumed and the batteries will last a long time.
- Pressing any button in sleep mode, wakes Blue-Bot up, plays a sound and flashes the eyes.



## Battery Precautions

- Blue-Bot is powered by a DC 3.7V 500mAh Lithium Polymer rechargeable battery.
- Rechargeable batteries are only to be charged under adult supervision.
- The supply terminals are not to be short-circuited.
- Regularly examine for damage to the plug, enclosure and other parts. In the event of any damage, the toy and charger must not be used until the damage has been repaired.
- Exhausted batteries are to be removed from the product.

## Care & Maintenance

- If necessary, wipe Blue-Bot gently with a clean damp cloth.
- Keep Blue-Bot away from direct sunlight and heat.
- Do not allow Blue-Bot to come into contact with water or other liquids. If painting or gluing on the additional shells, ensure the shells are dry before clipping to Blue-Bot.
- In the event of a static discharge, Blue-Bot may malfunction. In this case, please switch it off and then back on again to reset it.

## Important Information

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

**Warning:** Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**NOTE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:



Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

## Specification

Blue-Bot has been designed to be as accurate as possible in its movements.

However, due to the natural tolerances of mass-production, we can make no claims beyond those given below. In most cases you will find that Blue-Bot, on a good clean surface free from bumps, will perform even better.

### Specifications

Forward/backward movement	150mm $\pm$ 8mm
Left/right turn	90° $\pm$ 4°
Pause	1 second $\pm$ 15%
Speed of movement (depends on battery condition)	approx. 65 mm/sec
Batteries	D.C. 3.7V, 500mAH Lithium Polymer 2cm to 150cm $\pm$ 5%
Battery Life	approx 6 hours in normal usage (depends mainly on amount of movement)
Safety certificates	CE, EN71, EN62115, EMC, RED
Frequency Band Range:	2.400 - 2.483GHz
Maximum Radio-Frequency Power:	<10mW
Sensor	within approx. 25cm $\pm$ 10cm (environment dependant)



## Trouble Shooting

Blue-Bot is a precision floor robot that has been designed to work within a school environment. However, it is not designed to be dropped or trodden on or otherwise mistreated. Under no circumstances should you open up Blue-Bot as this will invalidate your warranty.

Problem	Solution
Blue-Bot won't do anything	Ensure power switch is "ON" Ensure the batteries are charged Recharge the batteries
No Sounds	Ensure "Sound" switch is "ON"
Blue-Bot doesn't travel straight	Look for foreign objects in wheels Check for smooth patches on wheels
Interaction not working	Ensure the Sensor and Sound switch are in the 'ON' position Make sure there are no obstacles in between the bots Ensure the mats are fully flat

## Waste Electrical and Electronic Equipment (WEEE)



When this appliance is out of use, please remove all batteries and dispose of them separately. Bring electrical appliances to the local collecting points for waste electrical and electronic equipment. Other components can be disposed of in domestic refuse.



The crossed-out dustbin symbols indicates that batteries, rechargeable batteries, button cells, battery packs, etc. must not be put in the household waste. Batteries are harmful to health and the environment.



Please help to protect the environment from health risks. If the toy is out of use, please use common household tool to break the product for built-in rechargeable battery operated toy or unscrew the battery door for replaceable battery operated toy, then take the battery out form the toy. Dispose of battery in accordance with your local battery recycling or disposal laws.

This product is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.

## Warranty & Support

This product is provided with a one year warranty for problems found during normal usage. Mistreating Blue-Bot or opening the unit will invalidate this warranty.

## Technical Support

Please visit [www.tts-group.co.uk](http://www.tts-group.co.uk) for the latest product information.

Email [feedback@tts-group.co.uk](mailto:feedback@tts-group.co.uk) for technical support.

TTS Group Ltd.  
Park Lane Business Park  
Kirkby-in-Ashfield  
Nottinghamshire  
NG17 9GU, UK.  
Freephone: 0800 318686 Freefax: 0800 137525

**WARNING:** Do not dispose of this product in household waste.

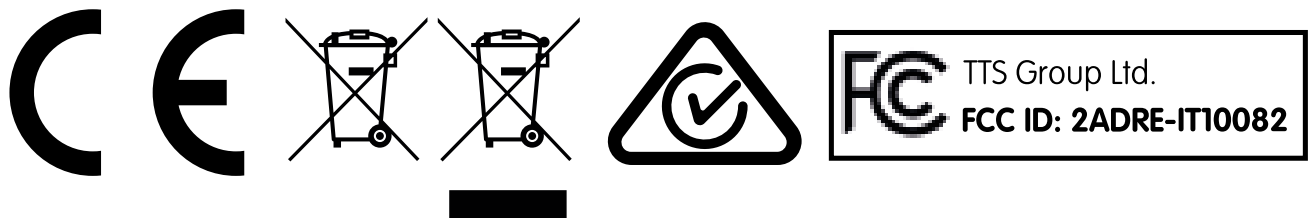
**WARNING:** Hand it over to a collection point for recycling electronic appliances.

**WARNING:** Not suitable for children under 36 months due to small parts - choking hazard.

Made in China, on behalf of TTS Group Ltd.

TTS Product Code:

**IT10082**



TTS is proud to be part of **RM**™ plc