

Blue-Bot Commands



Talk to Blue-Bot.

Terrapin Logo 4.1 can download Logo commands to a Blue-Bot robot. See the [Programming Blue-Bot](#) page for details. This page also explains how to connect a Blue-Bot.

Please note that you need *Terrapin Logo* version 4.1 or higher; older versions do not support the Blue-Bot commands.

BLUEBOT? (BLUEBOTP)

Tests if the Blue-Bot drivers are installed.

Syntax

```
BLUEBOT?
```

Description

BLUEBOT? reports TRUE if the Bluetooth drivers for Blue-Bot are installed. These drivers install as soon as you connect a Blue-Bot robot via Bluetooth.

The command is available in *Terrapin Logo* version 4.1 and up.

Example

```
BLUEBOT?  
Result: FALSE
```

BLUEBOT.CLEAR

Clears all commands stored in Blue-Bot's memory.

Syntax

```
BLUEBOT.CLEAR
```

Description

BLUEBOT.GO CLEARS all commands stored into Blue-Bot. This is equivalent to pressing Blue-Bot's CLEAR button, which is disabled when a connection is open.

The command is available in *Terrapin Logo* version 4.1 and up.

BLUEBOT.CLOSE

Closes the Blue-Bot connection.

Syntax

```
BLUEBOT.CLOSE
```

Description

BLUEBOT.CLOSE closes an open connection. After closing the connection, Blue-Bot's eyes turn white, and its buttons are enabled.

The command is available in *Terrapin Logo* version 4.1 and up.

BLUEBOT.GO

Executes commands stored in Blue-Bot's memory.

Syntax

```
BLUEBOT.GO
```

Description

BLUEBOT.GO executes all commands that a previous [BLUEBOT.WRITE](#) command has stored into Blue-Bot. This is equivalent to pressing Blue-Bot's GO button, which is disabled when a connection is open.

The command is available in *Terrapin Logo* version 4.1 and up.

BLUEBOT.OPEN

Opens the connection to Blue-Bot.

Syntax

```
BLUEBOT.OPEN
```

Description



The BLUEBOT.OPEN command opens the connection between *Terrapin Logo* and Blue-Bot. Once the connection is established, Blue-Bot's eyes turn blue, and Blue-Bot listens to commands. If you turn Blue-Bot off and on again, the connection breaks; you need to re-issue the BLUEBOT.OPEN command to re-connect to Blue-Bot.

Once Blue-Bot is connected to *Terrapin Logo*, its buttons are disabled. You need to close the connection using the [BLUEBOT.CLOSE](#) command to make the buttons work again.

The command is available in *Terrapin Logo* version 4.1 and up.

BLUEBOT.RUN

Executes Blue-Bot commands.

Syntax

```
BLUEBOT.RUN [list of commands]
```

Description

BLUEBOT.RUN transmits a list of commands to Blue-Bot and lets Blue-Bot execute them immediately. Use the [BLUEBOT.WRITE](#) and [BLUEBOT.GO](#) commands if you want Blue-Bot to repeatedly execute a list of stored commands.

Blue-Bot stores a maximum of up to 200 commands. Please note that a Logo command may consume more than one Blue-Bot command. If you get an error message that your code is too complex, consider using a repeat loop, or fewer movements. A `FD 10` command, for example, would store 10 `FD` commands into Blue-Bot's memory.

The command is available in *Terrapin Logo* version 4.1 and up.

Blue-Bot does not understand many commands. The following table provides an overview over all available Logo commands that Blue-Bot understands.

FORWARD	Blue-Bot moves forward in fixed-size units. A value of 1 does not mean a single pixel as the screen turtle, but one Blue-Bot movement unit, which is about 6 inches (15 cm). If you, for example, use the command <code>FD 2</code> , Blue-Bot will move forward one unit, stop briefly, and then move forward a second unit.
BACK	As with the <code>FORWARD</code> command, Blue-Bot moves backwards in the same way that it moves forward. If you use negative values as input to <code>BACK</code> , Blue-Bot moves forward and vice versa.
LEFT	Blue-Bot turns left or right in 45-degree increments. <i>Terrapin Logo</i> calculates the amount to turn in as few commands as possible. Therefore, Blue-Bot may make brief stops while turning.
RIGHT	The same limitations that are valid for the <code>LEFT</code> command also apply to this command. As with <code>FORWARD</code> and <code>BACK</code> , negative values make Blue-Bot turn in the opposite direction.
WAIT	This command corresponds to Blue-Bot's Pause button. Blue-Bot pauses in units of about two seconds. Therefore, the input to <code>WAIT</code> (which is a millisecond value) should be a multiple of 2000. <i>Terrapin Logo</i> rounds wait times up to the nearest multiple of two seconds.
REPEAT	Blue-Bot has a simple built-in repeat feature that lets it execute a list of commands between 1 and 16 times. The <code>REPEAT</code> command cannot be nested.

Example

```
BLUEBOT.RUN [REPEAT 4 [FD 1 RT 90]]
```

BLUEBOT.STATUS

Reports status information about Blue-Bot.

Syntax

```
BLUEBOT.STATUS
```

Description

BLUEBOT.STATUS outputs a three-element list. The first two elements are usually TRUE, but may be FALSE if one of Blue-Bot's motors is stalled; the third element is the battery level, which is a number between 0 and 1.

The command is available in *Terrapin Logo* version 4.1 and up.

Example

```
BLUEBOT.STATUS  
Result: [TRUE TRUE 0.8]
```

BLUEBOT.WRITE

Downloads a procedure to Blue-Bot.

Syntax

```
BLUEBOT.WRITE procedure-name
```

Description

BLUEBOT.WRITE transmits a procedure to Blue-Bot. Its input is the name of the procedure to transmit. It does not run these commands; use the [BLUEBOT.GO](#) command to execute a stored list of commands.

Blue-Bot stores a maximum of up to 200 commands. Please note that a Logo command may consume more than one Blue-Bot command. If you get an error message that your code is too complex, consider using a repeat loop, or fewer movements. A `FD 10` command, for example, would store 10 FD commands into Blue-Bot's memory.

For a list of commands that Blue-Bot understands, see the [BLUEBOT.RUN](#) command.

Please note that the procedure must not have any inputs, and it may not contain commands that Blue-Bot does not understand. See the [BLUEBOT.RUN](#) command for a list of commands; especially the Blue-Bot version of the [FORWARD](#) command is different.

The command is available in *Terrapin Logo* version 4.1 and up.

Example

```
TO MY.BLUEBOT  
  REPEAT 4 [FD 1 RT 90]  
END  
MY.BLUEBOT defined  
BLUEBOT.WRITE "MY.BLUEBOT  
BLUEBOT.GO
```