

**GoGo board library for Microworlds Logo
version 1.0**

Command Reference

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I - Sensor Commands

<p>sensor1 sensor2 sensor3 sensor4 sensor5 sensor6 sensor7 sensor8</p>	<p>Read the sensor value. Value ranges between 0-1023.</p> <ul style="list-style-type: none"> • 1023 is returned when there's no sensor attached to the port (highest resistance). • 0 is returned when the sensor is short circuited (no resistance).
<p>switch1 switch2 switch3 switch4 switch5 switch6 switch7 switch8</p>	<p>Returns the ON/OFF status of the sensor. This command is simply a macro that returns</p> <ul style="list-style-type: none"> • ON (1) if the sensor value is less than 512 • OFF (0) if the value is more than or equal to 512.
<p>Examples</p>	<p style="text-align: center;"><code>show sensor1</code></p> <p>will show sensor1's value</p> <p style="text-align: center;"><code>if switch1 [fd 100]</code></p> <p>will move the current turtle 100 steps if switch1 is ON.</p> <p style="text-align: center;"><code>waituntil [not switch3]</code></p> <p>will pause the program until switch3 is OFF.</p>
<p>sensorMax1 sensorMax2 sensorMax3 sensorMax4 sensorMax5 sensorMax6 sensorMax7 sensorMax8</p>	<p>Returns the maximum sensor reading the board has detected since the last sensorMax operation.</p> <p>The GoGo board automatically stores the highest sensor value it detects on each sensor port. It will send and reset this value of sensor port N every time a sensorMaxN command is used, where N ranges between 1 to 8.</p> <p>This function is very useful especially when the sensor is activated for a very short time (such as a push button used in a game). In this case, detecting the change by polling the sensor from Microworlds is often not quick enough. This is where sensorMax becomes very handy.</p>

<p>sensorMin1 sensorMin2 sensorMin3 sensorMin4 sensorMin5 sensorMin6 sensorMin7 sensorMin8</p>	<p>Same idea as sensorMax but returns the minimum sensor value the board has detected since the previous sensorMin operation.</p>
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II - Output (motor) Commands

<p>tta ttb ttc ttf tte ttf</p>	<p>Talk to an output port. This command will set the corresponding port at the active port. It will be the port effected by the action commands below.</p>
<p>TalkToPort [Port-list]</p>	<p>Talk to multiple output ports. Use this command when you want to control multiple devices simultaneously.</p> <p>Port-list consists of a list of port names ranging from 'a' to 'f'</p>
<p>Examples</p>	<p style="text-align: center;"><code>TalkToPort [a b c]</code></p> <p>will set port a, b, and c as the active ports.</p> <p style="text-align: center;"><code>TalkToPort [a f c b]</code></p> <p>will set port a, b, c, and f as the active ports (notice that port order has no effect)</p>
<p>On</p>	<p>Turns on the power of the active port(s).</p>
<p>Off</p>	<p>Turns off the power of the active port(s).</p> <p>Note: Off is actually a macro that calls Break (see below) and wait for a short time then calls Coast. It does this to save battery power.</p>
<p>Coast</p>	<p>Turns off the power of the active port(s). When attached to motors, no breaking is applied. Thus, the motor will gradually slow down before stopping completely.</p>
<p>Break</p>	<p>When used with motors, Break will immediately stop the motors (see Coast).</p> <p>Note: the break command draw a lot more energy from the battery than Coast and Break. It continues to consume power even though the motors have stopped. Thus, use it with care.</p>
<p>OnFor Duration</p>	<p>Turns on the active port for a Duration of time. Duration is in tenth of a second.</p>
<p>Examples</p>	<p style="text-align: center;"><code>tta on wait 10 off</code></p>

	<p>will turn on port A for 1 second. This is the equivalent of:</p> <pre>tta onfor 10</pre>
Thisway Thatway	<p>When used with motors, these two commands controls the direction in which the motor turns.</p> <p>Thisway and Tahtway could mean clockwise or counter-colckwise depending on how the motors are plugged into the port.</p>
Rd	Rd reverses the direction of the motor.
SetPower Power	<p>Sets the power level of the active port.</p> <p>Power ranges between 0-7. The default power level is 7 (full power).</p>
Examples	<pre>TalkToMotor [a b c d e f] setpower 4</pre> <p>will lower the power of all output ports by half of the full power.</p>