


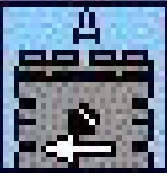

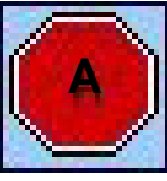
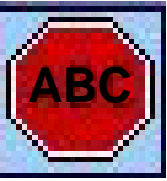


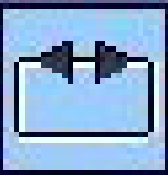

## PROGRAM BEGIN AND END

	<b>Begin program (Green light)</b>	<b>Beginning of a program. Required as the first command in every RoboLab program.</b>
	<b>End program (Red light)</b>	<b>End of a program. Required as the last command of each task in a RoboLab program.</b>






## MOTORS, LAMPS, AND SOUNDS

	<b>Motor A, Forward</b>	<b>Turn on motor connected to RCX Port A in forward direction at full power.</b>
	<b>Motor A, Reverse</b>	<b>Turn on motor connected to RCX Port A in reverse direction at full power.</b>
	<b>Lamp A</b>	<b>Turn on lamp connected to RCX Port A at full power.</b>
	<b>Stop A</b>	<b>Stop motor or lamp connected to RCX Port A.</b>
	<b>Stop all</b>	<b>Stop motors or lamps connected to all RCX output ports.</b>

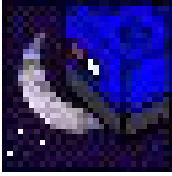

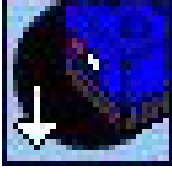

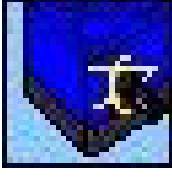
## MOTORS, LAMPS, AND SOUNDS

	<b>Flip direction</b>	Flip the direction of the motor on the specified RCX output ports. The default is all ports.
	<b>Play sound</b>	Play a sound. The sounds are: 1 - Key Click            4 - Rising Sweep 2 - Beep Beep         5 - Buzz 3 - Falling sweep     6 - Fast rising sweep(default)

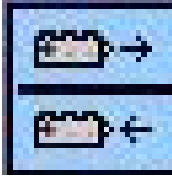
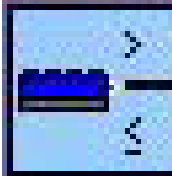
## WAIT FOR

	<b>Wait 1 second</b>	Wait 1 second before continuing.
	<b>Wait for time</b>	Wait for a specified amount of time in seconds. The default is 1 second.
	<b>Wait for push</b>	Wait until the touch sensor is pushed in. The default input port is Port 1.
	<b>Wait for release</b>	Wait until the touch sensor is released. The default input port is Port 1.
	<b>Wait for light</b>	Wait until the light sensor reads a value that is greater than the number specified. The default is 55 on Port 1.

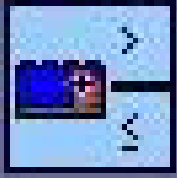

## WAIT FOR

	<b>Wait for dark</b>	Wait until the light sensor reads a value that is less than the number specified. The default is 55 on Port 1.
	<b>Brighter</b>	Wait for the light sensor to read a value that is greater than the current value. The default is a difference of 5 on Port 1.
	<b>Darker</b>	Wait for the light sensor to read a value that is less than the current value. The default difference is 5 on Port 1.
	<b>Wait for rotation</b>	Wait until the rotation sensor has counted to the specified number of counts. The default is 16 counts on Port 1.
	<b>Wait for angle</b>	Wait until the rotation sensor has reached a specified angle in degrees. The default is 180 deg. on Port 1.

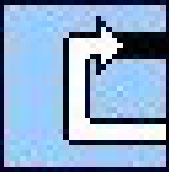
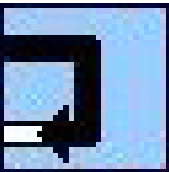

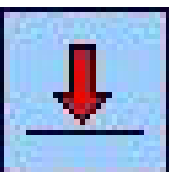

## FORKS

	<b>Touch sensor fork</b>	The program chooses between one of two paths depending on the state of the touch sensor. The default input is Port 1.
	<b>Light sensor fork</b>	The program chooses between one of two paths depending on the value of the light sensor. The default value is 55 on Port 1.

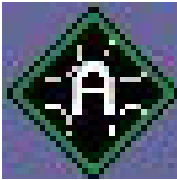
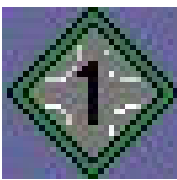



## FORKS

	<b>Rotational sensor fork</b>	The program chooses between one of two paths depending on the value of the rotational sensor. The default value is 16 on Port 1.
	<b>Fork merge</b>	Merge two branches of a fork back together. It must be used with all forks.


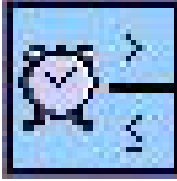
## STRUCTURES

	<b>Start loop</b>	Start of a loop structure. The default number of loops is 2.
	<b>End loop</b>	End of loop structure.
	<b>Jump</b>	Make the program jump to the matching land icon in the program.
	<b>Land</b>	This is where the program will jump to when you use the matching Jump icon.
	<b>Task split</b>	Create two tasks that run simultaneously. Both tasks need their own End Program icon.


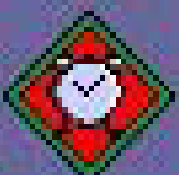
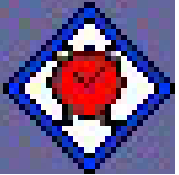
## MODIFIERS

	<b>Output A</b>	String this modifier to an icon to select output port A.
	<b>Input 1</b>	String this modifier to an icon to select input port 1.
	<b>Power level 1</b>	String this modifier to a motor or lamp to change the power level to 1.
	<b>Random number</b>	A random number between 0 and 8.
	<b>Numeric constant</b>	String this modifier to an icon that requires a constant value.




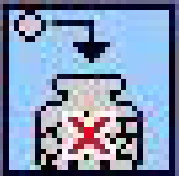
## TIMERS

	<b>Wait for timer</b>	Wait for timer to reach a certain value. The value must be specified in 10ths of seconds. <b>YOU MUST RESET THE TIMER FIRST!</b>
	<b>Timer fork</b>	Have the program choose between one of two branches depending on the value of the timer. The default is 5 seconds of the red timer.






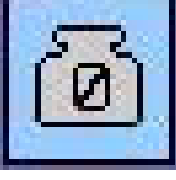
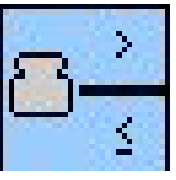
## TIMERS

	<b>Reset timer</b>	<b>Reset the timer to 0.</b>
	<b>Red timer</b>	<b>String this modifier to an icon to specify the red timer. There is also a blue and yellow timer.</b>
	<b>Value of red timer</b>	<b>This is the value of the red timer.</b>



## CONTAINERS

	<b>Fill container</b>	<b>Fill a container with a specified value. The default value is 1 in the red container.</b>
	<b>Add to container</b>	<b>Add a number to the container. The default is adding 1 to the red container.</b>
	<b>Subtract from container</b>	<b>Subtract a number from the container. The default is subtracting 1 from the red container.</b>
	<b>Multiply to container</b>	<b>Multitplies a number to the container. The default factor is 2 to the red container.</b>




## CONTAINERS

	<b>Divide container</b>	Divide the container by a specified value. The default value is 2 to the red container.
	<b>Touch container</b>	Set the container to the value of the touch sensor. The default is the touch sensor on Port 1 to the red container.
	<b>Light container</b>	Set the container to the value of the light sensor. The default is the light sensor on Port 1 to the red container.
	<b>Rotational container</b>	Set the container to the value of the rotational sensor. The default is the rotational sensor on Port 1 to the red container.
	<b>Timer container</b>	Set the container to the value of the timer. The default is the red timer to the red container.
	<b>Zero container</b>	Fill the container with a value of 0. The default is the red container.
	<b>Container fork</b>	Have the program choose between one of two branches depending on the value of the container. The default value is 1 on the red container.

## CONTAINERS

	<b>Red container</b>	<b>String this modifier to an icon to specify the red container. There is also a blue and yellow container.</b>
	<b>Value of red container</b>	<b>The value of the red container.</b>

## RESETS

	<b>Zero rotational sensor</b>	<b>Sets the value of the rotational sensor to 0.</b>
	<b>Zero container</b>	<b>Fill the container with a value of 0.</b>
	<b>Reset timer</b>	<b>Reset the timer to 0.</b>