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yellowgreenredblue</comment><script x="20"
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block s="\$robot move %n to %n"><l>2</l><l>5</l></custom-
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l></custom-block><custom-block s="\$robot move %n to %n"><l>3</
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%n seconds | wait ? %boolUE"><block var="position snapshot"/
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custom-block><block s="doWait"><l>4</l></block><custom-block
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custom-block><block s="doWait"><l>4</l></block><custom-block
s="$robot set position(s) %n of motor(s) %s in %n seconds | wait ?
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wait ? %boolUE"><block var="stretched"/><custom-block s="$robot all
motors"></custom-block><l>2</l></></custom-block><block
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s="doWait"><l>4</l></block><custom-block s="$robot set position(s)
%n of motor(s) %s in %n seconds | wait ? %boolUE"><block
var="position snapshot"/><custom-block s="$robot all motors"></
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l><l>curious_posture</l></custom-block></script><script x="20"
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option></l></block><custom-block s="$robot set motor(s) %s
%txt"><custom-block s="$robot all motors"></custom-block><l>stiff</
l></custom-block><custom-block s="$robot set position(s) %n of
motor(s) %s in %n seconds | wait ? %boolUE"><block var="position
snapshot"/><custom-block s="$robot all motors"></custom-block><l>1</
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motor(s) %s in %n seconds | wait ? %boolUE"><block var="stretched"/
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custom-block></script><script x="20" y="2524.9999999999995"><block
s="receiveKey"><l><option>space</option></l><comment w="194"
collapsed="false">Press &apos;space&apos; to go ot the default
position</comment></block><custom-block s="$robot set motor(s) %s
%txt"><custom-block s="$robot all motors"></custom-block><l>stiff</
l></custom-block><custom-block s="$robot set position(s) %n of
motor(s) %s in %n seconds | wait ? %boolUE"><l>0</l><custom-block
s="$robot all motors"></custom-block><l>1</l></custom-block></
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s="receiveKey"><l><option>d</option></l><comment w="177"
collapsed="false">Press &apos;d&apos; to make your robot stiff
(opposite of compliant). Motors have to be stiff to move.</
comment></block><custom-block s="$robot set motor(s) %s
%txt"><custom-block s="$robot all motors"></custom-block><l>stiff</
l></custom-block></script><script x="20" y="2718"><block
s="receiveKey"><l><option>a</option></l></block><custom-block
s="$robot %txt behaviours %txt"><l>start</l><l>dance</l></custom-
block><block s="doWait"><l>20</l></block><custom-block s="$robot
%txt behaviours %txt"><l>stop</l><l>dance</l></custom-block></
script><script x="20" y="2835"><block s="receiveKey"><l><option>c</
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option></l><comment w="137" collapsed="false">Press &apos;c&apos; to
make your robot Compliant (hand drivable)</comment></block><custom-
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motors"></custom-block><l>compliant</l></custom-block></
script><script x="20" y="2911"><custom-block s="$robot set motor(s)
%s %txt"><custom-block s="$robot all motors"></custom-
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var="position snapshot"/><custom-block s="$robot all motors"></
custom-block><l>5</l><l/></custom-block></script><script x="20"
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%s of motor(s) %s"><l>present_position</l><custom-block s="$robot
all motors"></custom-block></custom-block></block></script></
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VariableFrame {}</parms_list><tempvars_delim>Context &gt;&gt; a
CommandBlockMorph (&quot;script variables %scriptVars...&quot;) a
VariableFrame {}</tempvars_delim><doSetVar>Context &gt;&gt; a
CommandBlockMorph (&quot;script variables %scriptVars...&quot;) a
VariableFrame {}</doSetVar></code><blocks><block-definition
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input alias</comment><header></header><code></code><translations></
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list></block><block s="doSetVar"><l>output</l><block
s="reportURL"><block s="reportJoinWords"><list><custom-block
s="$robot robot URL"></custom-block><l>/motors/</l><block
var="alias"/></list></block></block></block><block
s="doIfElse"><block s="reportEquals"><block var="output"/><l></l></
block><script><custom-block s="$robot popup %txt"><block
s="reportJoinWords"><list><l>Group &lt; </l><block var="alias"/><l>
&gt; is not in the aivable groups of your robot : </l><custom-
block s="combine with %repRing items of %l"><block
s="reifyReporter"><autolambda><custom-block s="join words
%mult%txt"><list><l></l><l></l></list></custom-block></
autolambda><list></list></block><custom-block s="$robot all motors
groups"></custom-block></custom-block></list></block></custom-
block><block s="doReport"><l></l></block></script><script><block
s="doReport"><block s="reportTextSplit"><block var="output"/><l>/</

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l></block></block></script></block></script></block-
definition><block-definition s="$robot all motors" type="reporter"
category="sensing"><comment x="0" y="0" w="90"
collapsed="false">Return a list of all available motors</
comment><header></header><code></code><translations></
translations><inputs></inputs><script><block s="doReport"><custom-
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block></script></block-definition><block-definition s="if
%&apos;test&apos;; then %&apos;true&apos;; else %&apos;false&apos;";"
type="reporter" category="control"><header></header><code></
code><translations></translations><inputs><input type="%b"></
input><input type="%anyUE"></input><input type="%anyUE"></input></
inputs><script><block s="doIfElse"><block var="test"/><script><block
s="doReport"><block s="evaluate"><block var="true"/><list></list></
block></block></script><script><block s="doReport"><block
s="evaluate"><block var="false"/><list></list></block></block></
script></block></script></block-definition><block-definition
s="$robot get %&apos;register&apos;; of motor(s) %&apos;motors&apos;";"
type="reporter" category="sensing"><comment x="0" y="0"
w="230.00000099999988" collapsed="false">Get a defined
<register> &lt;value> of one motor.&#xD;Example of some
registers : torque_limit, angle_limit, present_temperature,
present_position...&#xD;For more informations about registers, look
at the online documentation : http://\$robot-project.github.io/pypot/
&#xD;</comment><header></header><code></code><translations></
translations><inputs><input
type="%s">present_position<options>position=present_position&#xD;spe
ed=present_speed&#xD;load
(force)=present_load&#xD;temperature=present_temperature&#xD;voltage
=present_voltage</options></input><input type="%s">motor_name</
input></inputs><script><block
s="doDeclareVariables"><list><l>output</l><l>complete motor list</
l></list></block><block s="doSetVar"><l>complete motor list</
l><custom-block s="$robot all motors"></custom-block></block><block
s="doIf"><block s="reportNot"><block s="reportIsA"><block
var="motors"/><l><option>list</option></l></block></
block><script><block s="doIfElse"><block s="report0r"><block
s="reportIsIdentical"><block var="motors"/><l>all</l></block><block
s="reportIsIdentical"><block var="motors"/><l></l></block></
block><script><block s="doSetVar"><l>motors</l><custom-block
s="$robot all motors"></custom-block></block></script><script><block
s="doSetVar"><l>motors</l><block s="reportTextSplit"><block
var="motors"/><l><option>whitespace</option></l></block></block></
script></block></script></block><custom-block s="for each %upvar of
%l %cs"><l>m</l><block var="motors"/><script><block s="doIf"><block
s="reportNot"><block s="reportListContainsItem"><block var="complete
motor list"/><block var="m"/></block></block><script><custom-block
s="$robot popup %txt"><block s="reportJoinWords"><list><l>Motor &lt;
/><block var="m"/><l> &gt; is not in the available motors of your
robot : </l><custom-block s="combine with %repRing items of
%l"><block s="reifyReporter"><autolambda><custom-block s="join words
%mult%txt"><list><l></l><l></l></list></custom-block></
autolambda><list></list></block><block var="complete motor list"/></
custom-block></list></block></custom-block><block s="doReport"><l></

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l>/block></script></block></script></custom-block><block
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items of %l"><block s="reifyReporter"><autolambda><block
s="reportJoinWords"><list><block var="#1"/><l>;</l><block var="#2"/
></list></block></autolambda><list><l>#1</l><l>#2</l></list></
block><block var="motors"/></custom-block><l>/get/</l><block
var="register"/></list></block></block><l>;</l></block></block></
script></block-definition><block-definition s="$robot robot URL"
type="reporter" category="sensing"><comment x="0" y="0" w="117"
collapsed="false">For internal use only</comment><header></
header><code></code><translations></translations><inputs></
inputs><script><block s="doReport"><block
s="reportJoinWords"><list><block var="host"/><l>:</l><block
var="port"/></list></block></block></script></block-
definition><block-definition s="$robot set motor(s)
%&apos;motor&apos;; %&apos;compliant&apos;" type="command"
category="control"><comment x="0" y="0" w="230.00000099999988"
collapsed="false">Compliance property make motors actively become
soft and movable.&#xD;You need to activate the compliance if you
want to record a movement by demonstration.&#xD;&#xD;The motor(s)
input can accept :&#xD;- string of a motor name&#xD;- string of many
motors separed with spaces&#xD;- a Snap! list of motors like the
reporter block &quot;$robot all motors&quot;</comment><header></
header><code></code><translations></translations><inputs><input
type="%s">motor_name</input><input type="%txt"
readonly="true">compliant<options>compliant&#xD;stiff</options></
input></inputs><script><block s="doDeclareVariables"><list><l>comp</
l></list></block><block s="doSetVar"><l>comp</l><custom-block s="if
%b then %anyUE else %anyUE"><block s="reportOr"><block
s="reportEquals"><block var="compliant"/><l>compliant</l></
block><block var="compliant"/></block><l>1</l><l>0</l></custom-
block></block><custom-block s="$robot set %txt of motor(s) %s to
%s"><l>compliant</l><block var="motor"/><block var="comp"/></custom-
block></script></block-definition><block-definition s="$robot set
position(s) %&apos;position&apos; of motor(s) %&apos;motors&apos; in
%&apos;duration&apos; seconds | wait ? %&apos;wait&apos;"
type="command" category="control"><comment x="0" y="0"
w="230.00000099999988" collapsed="false">set motor to the desired
position (angle) in the desired time.&#xD;&#xD;The motor(s) input
can accept :&#xD;- string of a motor name&#xD;- string of many
motors separed with spaces&#xD;- a Snap! list of motors like the
reporter block &quot;$robot all motors&quot;</comment><header></
header><code></code><translations></translations><inputs><input
type="%n">0</input><input type="%s">motor_name</input><input
type="%n">2</input><input type="%boolUE"></input></
inputs><script><block s="doDeclareVariables"><list><l>output</
l><l>complete motor list</l><l>i</l><l>mot_pos</l><l>query_URL</
l></list></block><block s="doSetVar"><l>mot_pos</l><block
s="reportNewList"><list></list></block></block><block
s="doSetVar"><l>i</l><l>1</l></block><block s="doSetVar"><l>complete
motor list</l><custom-block s="$robot all motors"></custom-block></
block><block s="doIf"><block s="reportNot"><block

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s="reportIsA"><block var="motors"/><l><option>list</option></l></
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s="reportIsIdentical"><block var="motors"/><l></l></
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s="$robot all motors"></custom-block></block></script><script><block
s="doSetVar"><l>motors</l><block s="reportTextSplit"><block
var="motors"/><l><option>whitespace</option></l></block></block></
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%l %cs"><l>m</l><block var="motors"/><script><block
s="doIfElse"><block s="reportNot"><block
s="reportListContainsItem"><block var="complete motor list"/><block
var="m"/></block></block><script><custom-block s="$robot popup
%txt"><block s="reportJoinWords"><list><l>Motor </l><block var="m"/
><l> is not in the aivaible motors of your robot : </l><custom-
block s="combine with %repRing items of %l"><block
s="reifyReporter"><autolambda><custom-block s="join words
%mult%txt"><list><l></l><l></l></list></custom-block></
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s="reportIsA"><block var="position"/><l><option>list</option></l></
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list></block><block var="mot_pos"/></block></script><script><block
s="doAddToList"><block s="reportJoinWords"><list><block var="m"/
><l>:</l><block var="position"/></list></block><block var="mot_pos"/
></block></script></block></script></block><block
s="doChangeVar"><l>i</l><l>1</l></block></script></custom-
block><block s="doSetVar"><l>query_URL</l><block
s="reportURL"><block s="reportJoinWords"><list><custom-block
s="$robot robot URL"></custom-block><l>/motors/set/goto/</l><block
s="reportJoinWords"><list><custom-block s="combine with %repRing
items of %l"><block s="reifyReporter"><autolambda><block
s="reportJoinWords"><list><block var="#1"/><l>:</l><block
var="duration"/><l>;</l><block var="#2"/></list></block></
autolambda><list><l>#1</l><l>#2</l></list></block><block
var="mot_pos"/></custom-block><l>:</l><block var="duration"/></
list></block></list></block></block></block></block><block
s="doIfElse"><block s="evaluate"><block var="wait"/><list></list></
block><script><block s="doRun"><block
s="reifyReporter"><autolambda><block var="query_URL"/></
autolambda><list></list></block><list></list></block><block
s="doWait"><block var="duration"/></block></script><script><block
s="doReport"><block var="query_URL"/></block></script></block></
script></block-definition><block-definition s="$robot set
%&apos;register&apos; of motor(s) %&apos;motors&apos; to
%&apos;value&apos;" type="command" category="control"><comment x="0"
y="0" w="230.00000099999988" collapsed="false">Set a defined
<value> to a defined <register> of one or many
motors.&#xD;Example of some registers : torque_limit, angle_limit,
safe_compliant, compliant...&#xD;For more informations about
registers, look at the online documentation : http://$robot-
project.github.io/pypot/&#xD;&#xD;The motor(s) input can

```

```

accept :&#xD;- string of a motor name&#xD;- string of many motors
separed with spaces&#xD;- a Snap! list of motors like the reporter
block &quot;$robot all motors&quot;</comment><header></
header><code></code><translations></translations><inputs><input
type="%txt"><options>position=goal_position&#xD;speed=moving_speed&#
xD;max torque(%)=torque_limit&#xD;compliance(True or
False)=compliant</options></input><input type="%s">motor_name</
input><input type="%s">value(s)</input></inputs><script><block
s="doDeclareVariables"><list><l>output</l><l>complete motor list</
l></list></block><block s="doSetVar"><l>complete motor list</
l><custom-block s="$robot all motors"></custom-block></block><block
s="doIf"><block s="reportNot"><block s="reportIsA"><block
var="motors"/><l><option>list</option></l></block></
block><script><block s="doIfElse"><block
s="reportIsIdentical"><block var="motors"/><l>all</l></
block><script><block s="doSetVar"><l>motors</l><custom-block
s="$robot all motors"></custom-block></block></script><script><block
s="doSetVar"><l>motors</l><block s="reportTextSplit"><block
var="motors"/><l><option>whitespace</option></l></block></block></
script></block></script></block><custom-block s="for each %upvar of
%l %cs"><l>m</l><block var="motors"/><script><block s="doIf"><block
s="reportNot"><block s="reportListContainsItem"><block var="complete
motor list"/><block var="m"/></block></block><script><custom-block
s="$robot popup %txt"><block s="reportJoinWords"><list><l>Motor &lt;
</l><block var="m"/><l> &gt; is not in the aivaible motors of your
robot : </l><custom-block s="combine with %repRing items of
%l"><block s="reifyReporter"><autolambda><custom-block s="join words
%mult%txt"><list><l></l><l></l></list></custom-block></
autolambda><list></list></block><block var="complete motor list"/></
custom-block></list></block></custom-block><block s="doReport"><l></
l></block></script></block></script></custom-block><block
s="doReport"><block s="reportURL"><block
s="reportJoinWords"><list><custom-block s="$robot robot URL"></
custom-block><l>/motors/set/registers/</l><block
s="reportJoinWords"><list><custom-block s="combine with %repRing
items of %l"><block s="reifyReporter"><autolambda><block
s="reportJoinWords"><list><block var="#1"/><l>:</l><block
var="register"/><l>:</l><block var="value"/><l>:</l><block var="#2"/
></list></block></autolambda><list><l>#1</l><l>#2</l></list></
block><block var="motors"/></custom-block><l>:</l><block
var="register"/><l>:</l><block var="value"/></list></block></list></
block></block></block></script></block-definition><block-definition
s="$robot get &apos;running&apos; behaviours" type="reporter"
category="sensing"><header></header><code></code><translations></
translations><inputs><input type="%s"
readonly="true">all<options>all&#xD;running</options></input></
inputs><script><block s="doIfElse"><block
s="reportIsIdentical"><block var="running"/><l>running</l></
block><script><block s="doReport"><block s="reportTextSplit"><block
s="reportURL"><block s="reportJoinWords"><list><custom-block
s="$robot robot URL"></custom-block><l>/primitives/</l><l>running</
l></list></block></block><l></l></block></block></
script><script><block s="doReport"><block s="reportTextSplit"><block
s="reportURL"><block s="reportJoinWords"><list><custom-block

```

```
s="$robot robot URL"></custom-block><l>/primitives</l><l></l></
list></block></block><l></l></block></block></script></block></
script></block-definition><block-definition s="empty?
'&data'" type="predicate" category="lists"><header></
header><code></code><translations></translations><inputs><input
type="%l"></input></inputs><script><block s="doReport"><block
s="reportEquals"><block var="data"/><block
s="reportNewList"><list></list></block></block></script></
block-definition><block-definition s="combine with
'&function'" type="reporter"
category="lists"><header></header><code></code><translations></
translations><inputs><input type="%repRing"></input><input
type="%l"></input></inputs><script><block s="doWarp"><script><block
s="doIf"><custom-block s="empty? %l"><block s="reportCDR"><block
var="data"/></block></custom-block><script><block
s="doReport"><block s="reportListItem"><l>1</l><block var="data"/></
block></block></script></block><block s="doReport"><block
s="evaluate"><block var="function"/><list><block
s="reportListItem"><l>1</l><block var="data"/></block><custom-block
s="combine with %repRing items of %l"><block var="function"/><block
s="reportCDR"><block var="data"/></block></custom-block></list></
block></block></script></block></script></block-definition><block-
definition s="join words '&words'" type="reporter"
category="operators"><header></header><code></code><translations></
translations><inputs><input type="%mult%txt"></input></
inputs><script><block s="doWarp"><script><block s="doIf"><custom-
block s="empty? %l"><block s="reportCDR"><block var="words"/></
block></custom-block><script><block s="doReport"><block
s="reportListItem"><l>1</l><block var="words"/></block></block></
script></block><block s="doReport"><block
s="reportJoinWords"><list><block s="reportListItem"><l>1</l><block
var="words"/></block><block s="reportJoinWords"><list><l> </l><block
s="evaluate"><block s="reifyReporter"><autolambda><custom-block
s="join words %mult%txt"><block s="reportCDR"><block var="words"/></
block></custom-block></autolambda><list></list></block><list></
list></block></list></block></list></block></script></
block></script></block-definition><block-definition s="for each
'&item' of '&data' 'action'"
type="command" category="lists"><header></header><code></
code><translations></translations><inputs><input type="%upvar"></
input><input type="%l"></input><input type="%cs"></input></
inputs><script><block s="doUntil"><custom-block s="empty? %l"><block
var="data"/></custom-block><script><block s="doSetVar"><l>item</
l><block s="reportListItem"><l>1</l><block var="data"/></block></
block><block s="doRun"><block var="action"/><list><block
s="reportListItem"><l>1</l><block var="data"/></block></list></
block><block s="doSetVar"><l>data</l><block s="reportCDR"><block
var="data"/></block></block></script></block></script></block-
definition><block-definition s="$robot popup 'message'"
type="command" category="other"><header></header><code></
code><translations></translations><inputs><input type="%txt"></
input></inputs><script><block s="doRun"><block
s="reportJSFunction"><list><l>message</l></list><l>alert(message);</
l></block><list><block var="message"/></list></block></script></
```

```

block-definition><block-definition s="$robot all motors groups"
type="reporter" category="sensing"><comment x="0" y="0" w="171"
collapsed="false">Return a list of all aliases.&#xD;Alias is a
keyword for representing many motors at once. </comment><header></
header><code></code><translations></translations><inputs></
inputs><script><block s="doReport"><block s="reportTextSplit"><block
s="reportURL"><block s="reportJoinWords"><list><custom-block
s="$robot robot URL"></custom-block><l>/motors/</l><l>alias</l></
list></block></block><l></l></block></block></script></block-
definition><block-definition s="$robot test connection"
type="reporter" category="sensing"><header></header><code></
code><translations></translations><inputs></inputs><script><block
s="doIfElse"><custom-block s="ping http:// %s"><custom-block
s="$robot robot URL"></custom-block></custom-block><script><block
s="doReport"><l>Connection ok!</l></block></script><script><block
s="doReport"><l>You may have connection troubles. Check the host
variable</l></block></script></block></script></block-
definition><block-definition s="$robot %&apos;action&apos;
behaviours %&apos;primitive&apos;" type="command"
category="control"><header></header><code></code><translations></
translations><inputs><input type="%txt"
readonly="true">start<options>start&#xD;stop&#xD;pause&#xD;resume</
options></input><input type="%txt"></input></inputs><script><block
s="doDeclareVariables"><list><l>all primitives</l><l>keyword list</
l></list></block><block s="doSetVar"><l>all primitives</l><custom-
block s="$robot get %s behaviours"><l>all</l></custom-block></
block><block s="doSetVar"><l>keyword list</l><block
s="reportNewList"><list><l>start</l><l>stop</l><l>pause</
l><l>resume</l></list></block></block><block s="doIfElse"><block
s="reportNot"><block s="reportListContainsItem"><block var="all
primitives"/><block var="primitive"/></block></
block><script><custom-block s="$robot popup %txt"><block
s="reportJoinWords"><list><l>Primitive &lt; </l><block
var="primitive"/><l> &gt; is not in the aivable primitives of your
robot : </l><custom-block s="combine with %repRing items of
%l"><block s="reifyReporter"><autolambda><custom-block s="join words
%mult%txt"><list><l></l><l></l></list></custom-block></
autolambda><list></list></block><block var="all primitives"/></
custom-block></list></block></custom-block><block s="doReport"><l></
l></block></script><script><block s="doIfElse"><block
s="reportNot"><block s="reportListContainsItem"><block var="keyword
list"/><block var="action"/></block></block><script><custom-block
s="$robot popup %txt"><block s="reportJoinWords"><list><l>Action
&lt; </l><block var="action"/><l> &gt; is not valid : </l><custom-
block s="combine with %repRing items of %l"><block
s="reifyReporter"><autolambda><custom-block s="join words
%mult%txt"><list><l></l><l></l></list></custom-block></
autolambda><list></list></block><block var="keyword list"/></custom-
block></list></block></custom-block><block s="doReport"><l></l></
block></script><script><block s="doReport"><block
s="reportURL"><block s="reportJoinWords"><list><custom-block
s="$robot robot URL"></custom-block><l>/primitive/</l><block
var="primitive"/><l></l><block var="action"/></list></block></
block></block></script></block></script></block></script></block-

```

```

definition><block-definition s="set $robot host to
%&apos;hostname&apos;" type="command"
category="variables"><header></header><code></code><translations></
translations><inputs><input type="%s"></input></
inputs><script><block s="doSetVar"><l>host</l><block var="hostname"/
></block><block s="doDeclareVariables"><list><l>tmp_hostname</l></
list></block><block s="doResetTimer"></block><block
s="doUntil"><block s="reportGreaterThan"><block s="getTimer"></
block><l>10</l></block><script><block s="doSetVar"><l>tmp_hostname</
l><block s="reportURL"><block s="reportJoinWords"><list><custom-
block s="$robot robot URL"></custom-block><l>/ip/</l></list></
block></block></block><block s="doIf"><block
s="reportGreaterThan"><block s="reportStringSize"><block
var="tmp_hostname"/></block><l>1</l></block><script><block
s="doSetVar"><l>host</l><block var="tmp_hostname"/></block><block
s="bubble"><custom-block s="$robot test connection"></custom-
block></block><block s="doReport"><l></l></block></script></
block><block s="doWait"><l>0.1</l></block></script></block><custom-
block s="$robot popup %txt"><l>Your robot host is unreacheble</l></
custom-block></script></block-definition><block-definition s="ping
http:// %&apos;url&apos;" type="predicate"
category="operators"><header></header><code></code><translations></
translations><inputs><input type="%s"></input></
inputs><script><block s="doResetTimer"></block><block
s="doWaitUntil"><block s="reportOr"><block
s="reportGreaterThan"><block s="getTimer"></block><l>5</l></
block><block s="reportGreaterThan"><block
s="reportStringSize"><block s="reportURL"><block var="url"/></
block></block><l>1</l></block></block></block><block
s="doIfElse"><block s="reportLessThan"><block s="getTimer"></
block><l>5</l></block><script><block s="doReport"><block
s="reportBoolean"><l><bool>>true</bool></l></block></block></
script><script><block s="doReport"><block
s="reportBoolean"><l><bool>>false</bool></l></block></block></
script></block></script></block-definition><block-definition
s="$robot close" type="command" category="motion"><header></
header><code></code><translations></translations><inputs></
inputs><script><custom-block s="$robot set position(s) %n of
motor(s) %s in %n seconds | wait ? %boolUE"><l>-20</l><l>m6</
l><l>1</l><l><bool>>true</bool></l></custom-block></script></block-
definition><block-definition s="$robot open" type="command"
category="motion"><header></header><code></code><translations></
translations><inputs></inputs><script><custom-block s="$robot set
position(s) %n of motor(s) %s in %n seconds | wait ?
%boolUE"><l>20</l><l>m6</l><l>0.5</l><l><bool>>true</bool></l></
custom-block></script></block-definition><block-definition s="$robot
turn to position %&apos;stack&apos;" type="command"
category="motion"><header></header><code></code><translations></
translations><inputs><input type="%n"
readonly="true">2<options>1&#xD;2&#xD;3&#xD;4&#xD;5</options></
input></inputs><script><custom-block s="$robot set position(s) %n of
motor(s) %s in %n seconds | wait ? %boolUE"><block
s="reportListItem"><block var="stack"/><block
s="reportNewList"><list><l>-90</l><l>-60</l><l>-30</l><l>0</

```

```
l><l>30</l></list></block></block><l>m1</l><l>3</l><l><bool>>true</
bool></l></custom-block></script></block-definition><block-
definition s="$robot face height %&apos;brick&apos;" type="command"
category="motion"><header></header><code></code><translations></
translations><inputs><input type="%n"
readonly="true">4<options>1&#xD;2&#xD;3&#xD;4</options></input></
inputs><script><custom-block s="$robot set position(s) %n of
motor(s) %s in %n seconds | wait ? %boolUE"><block
s="reportListItem"><block var="brick"/><block
s="reportNewList"><list><l>60</l><l>70</l><l>80</l><l>90</l></
list></block></block><l>m4</l><l>1</l><l><bool>true</bool></l></
custom-block></script></block-definition><block-definition s="$robot
face up rotating %&apos;rotating&apos;" type="command"
category="motion"><header></header><code></code><translations></
translations><inputs><input type="%b"></input></
inputs><script><custom-block s="$robot face height %n"><l>4</l></
custom-block><block s="doIf"><block var="rotating"/><script><custom-
block s="$robot set position(s) %n of motor(s) %s in %n seconds |
wait ? %boolUE"><l>0</l><l>m3</l><l>3</l><l><bool>true</bool></l></
custom-block></script></block></script></block-definition><block-
definition s="$robot face down rotating %&apos;rotating&apos;"
type="command" category="motion"><header></header><code></
code><translations></translations><inputs><input type="%b"></
input></inputs><script><block s="doIf"><block var="rotating"/
><script><custom-block s="$robot set position(s) %n of motor(s) %s
in %n seconds | wait ? %boolUE"><l>90</l><l>m3</l><l>3</
l><l><bool>true</bool></l></custom-block></script></block><custom-
block s="$robot set position(s) %n of motor(s) %s in %n seconds |
wait ? %boolUE"><l>65</l><l>m4</l><l>2</l><l><bool>true</bool></l></
custom-block></script></block-definition><block-definition s="$robot
space" type="command" category="motion"><header></header><code></
code><translations></translations><inputs></inputs><script><custom-
block s="$robot set position(s) %n of motor(s) %s in %n seconds |
wait ? %boolUE"><block s="reportSum"><block
s="reportListItem"><l>1</l><custom-block s="$robot get %s of
motor(s) %s"><l>present_position</l><l>m1</l></custom-block></
block><l>5</l></block><l>m1</l><l>0.5</l><l><bool>true</bool></l></
custom-block></script></block-definition><block-definition s="$robot
move %&apos;first&apos; to %&apos;second&apos;" type="command"
category="motion"><header></header><code></code><translations></
translations><inputs><input type="%n"
readonly="true">1<options>1&#xD;2&#xD;3&#xD;4&#xD;5</options></
input><input type="%n"
readonly="true">2<options>1&#xD;2&#xD;3&#xD;4&#xD;5</options></
input></inputs><script><custom-block s="$robot turn to position
%n"><block var="first"/></custom-block><block s="doWait"><l>1</l></
block><custom-block s="$robot space"></custom-block><custom-block
s="$robot open"></custom-block><custom-block s="$robot face down
rotating %b"><l><bool>>false</bool></l></custom-block><custom-block
s="$robot close"></custom-block><custom-block s="$robot face up
rotating %b"><l><bool>true</bool></l></custom-block><custom-block
s="$robot turn to position %n"><block var="second"/></custom-
block><block s="doWait"><l>1</l></block><custom-block s="$robot face
down rotating %b"><l><bool>true</bool></l></custom-block><block
```

```
s="doWait"><l>1</l></block><custom-block s="$robot open"></custom-
block><custom-block s="$robot space"></custom-block><custom-block
s="$robot face up rotating %b"><l><bool>>false</bool></l></custom-
block><block s="doWait"><l>1</l></block></script></block-
definition><block-definition s="place 'stack'"
type="command" category="motion"><header></header><code></
code><translations></translations><inputs><input type="%n"
readonly="true">1<options>1&#xD;2&#xD;3&#xD;4</options></input></
inputs><script><custom-block s="$robot face up rotating
%b"><l><bool>>true</bool></l></custom-block><custom-block s="$robot
turn to position %n"><block var="stack"/></custom-block><block
s="doWait"><l>1</l></block><custom-block s="$robot open"></custom-
block><custom-block s="$robot space"></custom-block><custom-block
s="$robot face down rotating %b"><l><bool>>true</bool></l></custom-
block></script><scripts><script x="286"
y="123.99999999999994"><custom-block s="$robot set position(s) %n of
motor(s) %s in %n seconds | wait ? %boolUE"><block var="start"/
><custom-block s="$robot all motors"></custom-block><l>3</
l><l><bool>>true</bool></l></custom-block></script></scripts></block-
definition><block-definition s="$robot turn sideways" type="command"
category="motion"><header></header><code></code><translations></
translations><inputs></inputs><script><custom-block s="$robot set
position(s) %n of motor(s) %s in %n seconds | wait ?
%boolUE"><l>90</l><l>m3</l><l>3</l><l><bool>>true</bool></l></custom-
block></script></block-definition></blocks><variables><variable
name="host"><l>169.254.54.148</l></variable><variable
name="port"><l>6969</l></variable><variable name="move name"><l>my
first move</l></variable><variable name="position snapshot"><list
struct="atomic" id="1391">92.82,-87.24,87.24,-4.84,-81.96,88.12</
list></variable><variable name="stretched"><list struct="atomic"
id="1392">89.3,6.6,-55.57,3.08,-47.07,-21.26</list></
variable><variable name="start"><list struct="atomic"
id="1393">-90.18,0.73,0.44,89.59,0.73,-24.78</list></variable></
variables></project>
```