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s="doSetVar"><l>a</l><block var="j"/></block></script></block></
script></custom-block></script></block><block s="doIf"><block

s="reportEquals"><block var="viable"/><l>1</l></block><script><block
s="doReport"><block var="a"/></block></script></block><block
s="doReport"><l>0</l></block></script><script x="149" y="422"><block
s="doWaitUntil"><block s="reportNot"><block
s="reportEquals"><custom-block s="detectionCol"></custom-
block><l>0</l></block></block></block></script><script
x="251.9999999999999" y="301"><custom-block s="detectionCol"></
custom-block></script><script x="209" y="332.0000000000001"><block
s="doSetVar"><l>viable</l><l>0</l></block></script></scripts></
sprite><sprite name="Lutin" idx="2" x="-108" y="6.000000000000028"
heading="214" scale="1" volume="100" pan="0" rotation="1"
draggable="true" costume="0" color="255,0,15.300000000000127,1"
pen="tip" id="215"><costumes><list struct="atomic" id="216"></
list></costumes><sounds><list struct="atomic" id="217"></list></
sounds><blocks></blocks><variables></variables><scripts><script
x="65.99999999999994" y="170.0000000000004"><block
s="doReplaceInList"><l>3</l><block var="position"/><custom-block
s="$robot get all motors positions"></custom-block></block></
script><script x="125.99999999999994" y="10"><block
s="doSetVar"><l>posInter</l><custom-block s="$robot get all motors
positions"></custom-block></block></script><script
x="375.8916025624999" y="31.000001000000054"><block
s="reportNewList"><list></list></block></script><script x="448"
y="242.00000000000034"><custom-block s="$robot set motor(s) %s
%txt"><l></l><l>compliant</l></custom-block></script><script x="482"
y="131.00000000000028"><custom-block s="gotoPos %l"><block
var="posCharg"/></custom-block></script><script
x="504.4990244374999" y="370.0000010000001"><block var="posCharg"/
></script><script x="457" y="463.66666666666697"><custom-block
s="for %upvar = %n to %n %cs"><l>j</l><l>1</l><l>7</
l><script><custom-block s="joueErgo %n"><block var="j"/></custom-
block></script></custom-block></script><script
x="162.99999999999994" y="441.33333333333303"><custom-block
s="detectionCol"></custom-block></script><script x="424"
y="107.00000000000023"><custom-block s="gotoPos %l"><block
s="reportListItem"><l>7</l><block var="position"/></block></custom-
block></script><script x="303" y="520.9999999999998"><block
s="doWarp"><script></script></block></script><script x="360"
y="568.3333333333319"><custom-block s="$robot play move %txt | speed
x %n"><l>vic</l><l>1</l></custom-block></script><script
x="315.9951181874999" y="258.0000010000002"><block var="posInter2"/
></script><script x="66.00000099999994"
y="464.0000010000001"><custom-block s="serre"></custom-block><block
s="doWait"><l>0</l></block><custom-block s="relache"></custom-
block></script><script x="439" y="301"><custom-block s="$robot set
motor(s) %s %txt"><l></l><l>stiff</l></custom-block></script><script
x="59" y="57.00000000000034"><custom-block s="$robot get all motors
positions"></custom-block></script><script x="302.99999999999994"
y="273.0000000000002"><block s="receiveMessage"><l>victoire</l></
block><custom-block s="gotoPos %l"><block var="posInter"/></custom-
block><block s="doWait"><l>1</l></block><custom-block s="$robot set
position(s) %n of motor(s) %s in %n seconds | wait ? %boolUE"><l>0</
l><l>m4</l><l>1</l><l/></custom-block><custom-block s="$robot set
position(s) %n of motor(s) %s in %n seconds | wait ?

%boolUE"><l>-60</l><l>m5</l><l>1</l><block s="reportBoolean"><l><bool>true</bool></l></block></custom-block><custom-block s="for %upvar = %n to %n %cs"><l>j</l><l>1</l><l>3</l><script><custom-block s="$robot set position(s) %n of motor(s) %s in %n seconds | wait ? %boolUE"><l>-20</l><l>m6</l><l>0.5</l><block s="reportBoolean"><l><bool>true</bool></l></block></custom-block><custom-block s="$robot set position(s) %n of motor(s) %s in %n seconds | wait ? %boolUE"><l>10</l><l>m6</l><l>0.5</l><block s="reportBoolean"><l><bool>true</bool></l></block></custom-block></script></custom-block></script><script x="21" y="231.66666666666663"><block s="receiveMessage"><l>defaite</l></block><custom-block s="gotoPos %l"><block var="posInter"/></custom-block><block s="doWait"><l>1</l></block><custom-block s="$robot set position(s) %n of motor(s) %s in %n seconds | wait ? %boolUE"><l>0</l><l>m2</l><l>1</l><l/></custom-block><custom-block s="$robot set position(s) %n of motor(s) %s in %n seconds | wait ? %boolUE"><l>-70</l><l>m4</l><l>1</l><l/></custom-block><custom-block s="$robot set position(s) %n of motor(s) %s in %n seconds | wait ? %boolUE"><l>30</l><l>m5</l><l>1</l><block s="reportBoolean"><l><bool>true</bool></l></block></custom-block><custom-block s="for %upvar = %n to %n %cs"><l>j</l><l>1</l><l>3</l><script><custom-block s="$robot set position(s) %n of motor(s) %s in %n seconds | wait ? %boolUE"><l>-20</l><l>m6</l><l>0.5</l><block s="reportBoolean"><l><bool>true</bool></l></block></custom-block><custom-block s="$robot set position(s) %n of motor(s) %s in %n seconds | wait ? %boolUE"><l>10</l><l>m6</l><l>0.5</l><block s="reportBoolean"><l><bool>true</bool></l></block></custom-block></script></custom-block></script><script x="165.99999999999994" y="515.9999999999991"><custom-block s="joueErgo %n"><l>3</l></custom-block></script></scripts></sprite><watcher var="port" style="normal" x="0.00004768371582203125" y="0.000147819528564241141" color="243,118,29" hidden="true"/><watcher var="host" style="normal" x="298.00089740753174" y="72.01099109649658" color="243,118,29"/><watcher var="choixIA" style="normal" x="295" y="0" color="243,118,29"/><watcher var="maxCompteur" style="normal" x="304" y="138.99999999999997" color="243,118,29"/><watcher var="case" style="normal" x="7" y="-1" color="243,118,29" extX="80" extY="70"/><watcher var="LPR" style="normal" x="9" y="28" color="243,118,29" extX="110" extY="247"/><watcher var="posCharg" style="normal" x="217" y="100.00000199999997" color="243,118,29" extX="91" extY="165.00000000000003"/><watcher var="posInter" style="normal" x="344" y="187.000004" color="243,118,29" extX="80" extY="70"/><watcher var="posInter2" style="normal" x="280" y="242.00000599999993" color="243,118,29" extX="80" extY="70"/><watcher var="choixE" style="normal" x="372" y="36" color="243,118,29"/><watcher var="viable" style="normal" x="10" y="10" color="243,118,29"/><watcher var="position" style="normal" x="211" y="29" color="243,118,29" extX="188.0000000000001" extY="310"/><watcher var="compteur" style="normal" x="107" y="-2" color="243,118,29" extX="80" extY="215"/></sprites></stage><hidden></hidden><headers></headers><code><delim></delim><string><#1></string><parms_list>Context >> a CommandBlockMorph ("script variables %scriptVars...") a

VariableFrame {}</parms_list><tempvars_delim>Context >> a
CommandBlockMorph ("script variables %scriptVars...") a
VariableFrame {}</tempvars_delim><doSetVar>Context >> a
CommandBlockMorph ("script variables %scriptVars...") a
VariableFrame {}</doSetVar></code><blocks><block-definition
s="$robot motors in group %'alias'" type="reporter"
category="sensing"><comment x="0" y="0" w="302"
collapsed="false">Return a list of motors which are grouped in the
input alias</comment><header></header><code></code><translations></
translations><inputs><input type="%txt">arms</input></
inputs><script><block s="doReport"><block s="reportTextSplit"><block
s="reportURL"><block s="reportJoinWords"><list><custom-block
s="$robot robot URL"></custom-block><l>/motors/</l><block
var="alias"/></list></block></block><l>/</l></block></block></
script></block-definition><block-definition s="$robot all motors"
type="reporter" category="sensing"><comment x="0" y="0" w="90"
collapsed="false">Return a list of all available motors</
comment><header></header><code></code><translations></
translations><inputs></inputs><script><block s="doReport"><custom-
block s="$robot motors in group %txt"><l>motors</l></custom-block></
block></script></block-definition><block-definition s="$robot get
all motors positions" type="reporter" category="sensing"><comment
x="0" y="0" w="170" collapsed="false">Return a list of all motors
present positions, in the order of "$robot all motors"
block list.Usefull for some advanced programs.</
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/get/positions</l></list></block></
block><l>;</l></block></block></script></block-definition><block-
definition s="if %'test' then %'true' else
%'false'" 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="for %'j' = %'start' to
%'end' %'action'" type="command"
category="control"><header></header><code></code><translations></
translations><inputs><input type="%upvar"></input><input
type="%n">1</input><input type="%n">10</input><input type="%cs"></
input></inputs><script><block s="doDeclareVariables"><list><l>step</
l><l>tester</l></list></block><block s="doIfElse"><block
s="reportGreaterThan"><block var="start"/><block var="end"/></
block><script><block s="doSetVar"><l>step</l><l>-1</l></block><block
s="doSetVar"><l>tester</l><block
s="reifyReporter"><autolambda><block s="reportLessThan"><block
var="j"/><block var="end"/></block></autolambda><list></list></
block></block></script><script><block s="doSetVar"><l>step</l><l>1</
l></block><block s="doSetVar"><l>tester</l><block

```
s="reifyReporter"><autolambda><block s="reportGreaterThan"><block
var="j"/><block var="end"/></block></autolambda><list></list></
block></block></script></block><block s="doSetVar"><l>j</l><block
var="start"/></block><block s="doUntil"><block s="evaluate"><block
var="tester"/><list></list></block><script><block s="doRun"><block
var="action"/><list></list></block><block s="doChangeVar"><l>j</
l><block var="step"/></block></script></block></
script><scripts><script x="244.8916035625"
y="155.00000599999998"><block var="i"/></script><script
x="235.8916035625" y="230.8333393333333"><block var="i"/></
script><script x="263.681643625" y="257.000003"><block var="j"/></
script></scripts></block-definition><block-definition s="$robot get
%&apos;register&apos; of motor(s) %&apos;motors&apos;"
type="reporter" category="sensing"><comment x="0" y="0"
w="230.00000099999988" collapsed="false">Get a defined
&lt;register&gt; &lt;value&gt; of one motor.&#xD;Example of some
registers : torque_limit, angle_limit, present_temperature,
present_position...&#xD;For more informations about registers, look
at the online documentation : http://$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="$robot all motors"></custom-block></block><block
s="doIf"><block s="reportNot"><block s="reportIsA"><block
var="motors"/><l><option>list</option></l></block></
block><script><block s="doIfElse"><block s="reportOr"><block
s="reportIsIdentical"><block var="motors"/><l>all</l></block><block
s="reportIsIdentical"><block var="motors"/><l></l></block></
block><script><block s="doSetVar"><l>motors</l><custom-block
s="$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="$robot popup %txt"><block s="reportJoinWords"><list><l>Motor </
l><block var="m"/><l> is not in the aivaible motors of your robot :
</l><custom-block s="combine with %repRing items of %l"><block
s="reifyReporter"><autolambda><custom-block s="join words
%mult%txt"><list><l></l><l></l></list></custom-block></
autolambda><list></list></block><block var="complete motor list"/></
custom-block></list></block></custom-block><block s="doReport"><l></
l></block></script></block></script></custom-block><block
s="doReport"><block s="reportURL"><block
s="reportJoinWords"><list><custom-block s="$robot robot URL"></
custom-block><l>/motors/</l><custom-block s="combine with %repRing
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></block></script></block-
definition><block-definition s="$robot index of motor
%&apos;motor&apos;" type="reporter" category="sensing"><comment
x="0" y="0" w="109" collapsed="false">Return the index of a motor
name in the &quot;$robot all motors&quot; block list</
comment><header></header><code></code><translations></
translations><inputs><input type="%txt"></input></
inputs><script><block s="doDeclareVariables"><list><l>i</l></list></
block><block s="doSetVar"><l>i</l><l>1</l></block><custom-block
s="for each %upvar of %l %cs"><l>m</l><custom-block s="$robot all
motors"></custom-block><script><block s="doIf"><block
s="reportEquals"><block var="m"/><block var="motor"/></
block><script><block s="doReport"><block var="i"/></block></
script></block><block s="doChangeVar"><l>i</l><l>1</l></block></
script></custom-block></script></block-definition><block-definition
s="$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="$robot set motor(s)
%&apos;motor&apos; %&apos;compliant&apos;" type="command"
category="control"><comment x="0" y="0" w="230.00000099999988"
collapsed="false">Compliance property make motors activly become
soft and movable.&#xD;You need to activate the compliance if you
want to record a movement by demonstration.&#xD;&#xD;The motor(s)
input can accept :&#xD;- string of a motor name&#xD;- string of many
motors separed with spaces&#xD;- a Snap! list of motors like the
reporter block &quot;$robot all motors&quot;</comment><header></
header><code></code><translations></translations><inputs><input
type="%s"></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"></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>querry_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="$robot all motors"></custom-block></block></block><block s="doIf"><block s="reportNot"><block s="reportIsA"><block var="motors"/><l><option>list</option></l></block></block><script><block s="doIfElse"><block s="reportIsIdentical"><block var="motors"/><l></l></block><script><block s="doSetVar"><l>motors</l><custom-block s="$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="doIfElse"><block s="reportNot"><block s="reportListContainsItem"><block var="complete motor list"/><block var="m"/></block></block><script><custom-block s="$robot popup %txt"><block s="reportJoinWords"><list><l>Motor </l><block var="m"/><l> is not in the aivaible motors of your robot : </l><custom-block s="combine with %repRing items of %l"><block s="reifyReporter"><autolambda><custom-block s="join words %mult%txt"><list><l></l><l></l></list></custom-block></autolambda><list></list></block><block var="complete motor list"/></custom-block></list></block></custom-block><block s="doReport"><l></l></block></script><script><block s="doIfElse"><block s="reportIsA"><block var="position"/><l><option>list</option></l></block><script><block s="doAddToList"><block s="reportJoinWords"><list><block var="m"/><l>:</l><block s="reportListItem"><block var="i"/><block var="position"/></block></list></block><block var="mot_pos"/></block></script><script><block s="doAddToList"><block s="reportJoinWords"><list><block var="m"/><l>:</l><block var="position"/></list></block><block var="mot_pos"/></block></script></block></script></block><block s="doChangeVar"><l>i</l><l>1</l></block></script></custom-block><block s="doSetVar"><l>querry_URL</l><block s="reportURL"><block s="reportJoinWords"><list><custom-block s="$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 s="doIfElse"><block s="evaluate"><block var="wait"/><list></list></block><script><block s="doRun"><block s="reifyReporter"><autolambda><block var="querry_URL"/></autolambda><list></list></block><list></list></block><block s="doWait"><block var="duration"/></block></script><script><block s="doReport"><block var="querry_URL"/></block></script></block></script></block-definition><block-definition s="$robot reset %'simulation'" type="command" category="control"><comment

x="0" y="0" w="182" collapsed="false">Reset the simulation in V-rep.It is usefull if you have connection issues with V-rep.</comment><header></header><code></code><translations></translations><inputs><input type="%s" readonly="true">robot<options>robotsimulation</options></input></inputs><script><block s="doIfElse"><block s="reportEquals"><block var="simulation"/><l>robot</l></block><script><block s="fork"><block s="reifyReporter"><autolambda><block s="evaluate"><block s="reifyReporter"><autolambda><block s="reportURL"><block s="reportJoinWords"><list><block var="host"/><l>/services.php?python=restart</l></list></block></block></autolambda><list></list></block><list></list></block></autolambda><list></list></block><list></list></block><block s="fork"><block s="reifyReporter"><autolambda><block s="evaluate"><block s="reifyReporter"><autolambda><block s="reportURL"><block s="reportJoinWords"><list><block var="host"/><l>/reset</l></list></block></block></autolambda><list></list></block><list></list></block></autolambda><list></list></block><list></list></block></script><script><block s="doReport"><block s="reportURL"><block s="reportJoinWords"><list><custom-block s="$robot robot URL"></custom-block><l>/reset-simulation</l></list></block></block></block></script></block></script></block-definition><block-definition s="$robot all recorded moves" type="reporter" category="sensing"><comment x="0" y="0" w="164" collapsed="false">Return a list of all previous records filename.</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>/primitive/MovePlayer</l></list></block></block><l>/</l></block></block></script></block-definition><block-definition s="append %'lists'" type="reporter" category="lists"><comment x="0" y="0" w="287" collapsed="false">Take any number of input lists, and create a new list containing the items of the input lists. So APPEND [A B] [C D]where the [,,,] are lists reports the list[A B C D]not [[A B] [C D]].</comment><header></header><code></code><translations></translations><inputs><input type="%mult%l"></input></inputs><script><block s="doWarp"><script><block s="doIf"><block s="reportEquals"><block var="lists"/><block s="reportNewList"><list></list></block></block><script><block s="doReport"><block s="reportNewList"><list></list></block></block></script></block><block s="doIf"><block s="reportEquals"><block s="reportListLength"><block var="lists"/></block><l>1</l></block><script><block s="doReport"><block s="reportListItem"><l>1</l><block var="lists"/></block></block></script></block><block s="doIf"><block s="reportEquals"><block s="reportListItem"><l>1</l><block var="lists"/></block><block s="reportNewList"><list></list></block></block><script><block s="doReport"><custom-block s="append %mult%l"><block s="reportCDR"><block var="lists"/></block></custom-block></block></script></block><block s="doReport"><block s="reportCONS"><block s="reportListItem"><l>1</l><block s="reportListItem"><l>1</l><block

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var="lists"/></block></block><custom-block s="append %mult%l"><block
s="reportCONS"><block s="reportCDR"><block s="reportListItem"><l>1</
l><block var="lists"/></block></block><block s="reportCDR"><block
var="lists"/></block></block></custom-block></block></block></
script></block></script></block-definition><block-definition
s="reverse %&apos;data&apos;" type="reporter"
category="lists"><comment x="0" y="0" w="223"
collapsed="false">Reports a new list containing the items of the
input list, but in the opposite order.</comment><header></
header><code></code><translations></translations><inputs><input
type="%l"></input></inputs><script><block
s="doDeclareVariables"><list><l>helper</l></list></block><block
s="doSetVar"><l>helper</l><block s="reifyScript"><script><block
s="doIf"><block s="reportEquals"><block var="input"/><block
s="reportNewList"><list></list></block></block><script><block
s="doReport"><block var="result"/></block></script></block><block
s="doReport"><block s="evaluate"><block var="helper"/><list><block
s="reportCDR"><block var="input"/></block><block
s="reportCONS"><block s="reportListItem"><l>1</l><block var="input"/
></block><block var="result"/></block></list></block></block></
script><list><l>input</l><l>result</l></list></block></block><block
s="doWarp"><script><block s="doReport"><block s="evaluate"><block
var="helper"/><list><block var="data"/><block
s="reportNewList"><list></list></block></list></block></block></
script></block></script></block-definition><block-definition
s="remove duplicates from %&apos;data&apos;" type="reporter"
category="lists"><comment x="0" y="0" w="209"
collapsed="false">Reports a new list whose items are the same as in
the input list, except that if two or more equal items appear in the
input list, only the last one is kept in the result.</
comment><header></header><code></code><translations></
translations><inputs><input type="%l"></input></
inputs><script><block s="doWarp"><script><block s="doIf"><block
s="reportEquals"><block var="data"/><block
s="reportNewList"><list></list></block></block><script><block
s="doReport"><block s="reportNewList"><list></list></block></
block></script></block><block s="doIfElse"><block
s="reportListContainsItem"><block s="reportCDR"><block var="data"/
></block><block s="reportListItem"><l>1</l><block var="data"/></
block></block><script><block s="doReport"><custom-block s="remove
duplicates from %l"><block s="reportCDR"><block var="data"/></
block></custom-block></block></script><script><block
s="doReport"><block s="reportCONS"><block s="reportListItem"><l>1</
l><block var="data"/></block><custom-block s="remove duplicates from
%l"><block s="reportCDR"><block var="data"/></block></custom-
block></block></block></script></block></script></block></script></
block-definition><block-definition s="sort %&apos;data&apos;
ordering with %&apos;function&apos;" type="reporter"
category="lists"><comment x="0" y="0" w="204"
collapsed="false">Reports a sorted version of the list in its first
input slot, using the comparison function in the second input slot.
For a list of numbers, using &lt; as the comparison function will
sort from low to high; using &gt; will sort from high to low.</
comment><header></header><code></code><translations></
```

translations><inputs><input type="%l"></input><input type="%predRing"></input></inputs><script><block s="doDeclareVariables"><list><l>even items</l><l>odd items</l><l>merge</l></list></block><block s="doSetVar"><l>odd items</l><block s="reifyScript"><script><block s="doIf"><block s="reportEquals"><l></l><block s="reportNewList"><list></list></block></block><script><block s="doReport"><block s="reportNewList"><list></list></block></block></script></block><block s="doReport"><block s="reportCONS"><block s="reportListItem"><l>1</l><l/></block><block s="evaluate"><block var="even items"/><list><block s="reportCDR"><l/></block></list></block></block></block></script><list></list></block></block><block s="doSetVar"><l>even items</l><block s="reifyScript"><script><block s="doIf"><block s="reportEquals"><l></l><block s="reportNewList"><list></list></block></block><script><block s="doReport"><block s="reportNewList"><list></list></block></block></script></block><block s="doReport"><block s="evaluate"><block var="odd items"/><list><block s="reportCDR"><l/></block></list></block></block></block></script><list></list></block></block><block s="doSetVar"><l>merge</l><block s="reifyScript"><script><block s="doIf"><block s="reportEquals"><block var="#1"/><block s="reportNewList"><list></list></block></block><script><block s="doReport"><block var="#2"/></block></script></block><block s="doIf"><block s="reportEquals"><block var="#2"/><block s="reportNewList"><list></list></block></block><script><block s="doReport"><block var="#1"/></block></script></block><block s="doIfElse"><block s="evaluate"><block var="function"/><list><block s="reportListItem"><l>1</l><block var="#1"/></block><block s="reportListItem"><l>1</l><block var="#2"/></block></list></block><script><block s="doReport"><block s="reportCONS"><block s="reportListItem"><l>1</l><block var="#1"/></block><block s="evaluate"><block var="merge"/><list><block s="reportCDR"><block var="#1"/></block><block var="#2"/></list></block></block></block></script><script><block s="doReport"><block s="reportCONS"><block s="reportListItem"><l>1</l><block var="#2"/></block><block s="evaluate"><block var="merge"/><list><block var="#1"/><block s="reportCDR"><block var="#2"/></block></list></block></block></block></script></block></script><list><l>#1</l><l>#2</l></list></block></block><block s="doIf"><block s="reportEquals"><block var="data"/><block s="reportNewList"><list></list></block></block><script><block s="doReport"><block s="reportNewList"><list></list></block></block></script></block><block s="doIf"><block s="reportEquals"><block s="reportCDR"><block var="data"/></block><block s="reportNewList"><list></list></block></block><script><block s="doReport"><block var="data"/></block></script></block><block s="doReport"><block s="evaluate"><block var="merge"/><list><custom-block s="sort %l ordering with %predRing"><block s="evaluate"><block var="odd items"/><list><block var="data"/></list></block><block var="function"/></custom-block><custom-block s="sort %l ordering with %predRing"><block s="evaluate"><block var="even items"/><list><block var="data"/></list></block><block var="function"/></custom-block></list></block></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
&lt;value&gt; to a defined &lt;register&gt; 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;compliancy(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="$robot all motors"></custom-block></block><block
s="doIf"><block s="reportNot"><block s="reportIsA"><block
var="motors"/><l><option>list</option></l></block></
block><script><block s="doIfElse"><block s="reportOr"><block
s="reportIsIdentical"><block var="motors"/><l>all</l></block><block
s="reportIsIdentical"><block var="motors"/><l></l></block></
block><script><block s="doSetVar"><l>motors</l><custom-block
s="$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="$robot popup %txt"><block s="reportJoinWords"><list><l>Motor </
l><block var="m"/><l> is not in the aivaible motors of your robot :
</l><custom-block s="combine with %repRing items of %l"><block
s="reifyReporter"><autolambda><custom-block s="join words
%mult%txt"><list><l></l><l></l></list></custom-block></
autolambda><list></list></block><block var="complete motor list"/></
custom-block></list></block></custom-block><block s="doReport"><l></
l></block></script></block></script></custom-block><block
s="doReport"><block s="reportURL"><block
s="reportJoinWords"><list><custom-block s="$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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="$robot play move
%'record_name' | speed x %'speed'"
type="reporter" category="control"><comment x="0" y="0"
w="230.00000099999988" collapsed="false">Play the movement of a
previous recorded move. The <record_name> input is
the name of a .record filename which should be in the same directory
where you started the web server (with the command "$robot-snap
$robot-ergo" for example).You can change the play
speed with the <speed> input.</comment><header></
header><code></code><translations></translations><inputs><input
type="%txt">name</input><input type="%n">1</input></
inputs><script><block s="doDeclareVariables"><list><l>time</l></
list></block><block s="doDeclareVariables"><list><l>wait</l></
list></block><block s="doSetVar"><l>wait</l><block
s="reportBoolean"><l><bool>true</bool></l></block></block><block
s="doIfElse"><block s="reportListContainsItem"><custom-block
s="$robot all recorded moves"></custom-block><block
var="record_name"/></block><script><block s="doSetVar"><l>time</
l><block s="reportURL"><block s="reportJoinWords"><list><custom-
block s="$robot robot URL"></custom-block><l>/primitive/MovePlayer/
</l><block var="record_name"/><l>/start/</l><block var="speed"/></
list></block></block></block><block s="doIf"><block var="wait"/
><script><block s="doWait"><block var="time"/></block></
script><comment w="90" collapsed="false">ugly wait to stop
feature.TODO : change with a looking at running primitive</
comment></block></script><script><custom-block s="$robot popup
%txt"><block s="reportJoinWords"><list><l>Error : <</l><block
var="record_name"/><l>> is not is the avaible records (look at
the block $robot all records to see all recorded moves) </l><custom-
block s="$robot all recorded moves"></custom-block></list></block></
custom-block></script></block><block s="doReport"><block
var="record_name"/></block></script><scripts><script x="446"
y="535"><block s="doReport"><l>0</l></block></script></scripts></
block-definition><block-definition s="$robot sequence
%'mov'" type="reporter" category="control"><header></
header><code></code><translations></translations><inputs><input
type="%mult%repRing"></input></inputs><script><block
s="doDeclareVariables"><list><l>out</l></list></block><block
s="doSetVar"><l>out</l><l></l></block><custom-block s="for each
%upvar of %l %cs"><l>item</l><block var="mov"/><script><block
s="doSetVar"><l>out</l><block s="reportJoinWords"><list><block
s="reportCallCC"><block var="item"/></block><l>;</l><block
var="out"/></list></block></block></script></custom-block><block

```
s="doReport"><block var="out"/></block></script></block-
definition><block-definition s="$robot concurrent
%&apos;movements&apos;" type="reporter" category="control"><comment
x="0" y="0" w="202" collapsed="false">All reports input are run
concurently.&#xD;You can use this block to play concurrently many
recorded move</comment><header></header><code></
code><translations></translations><inputs><input
type="%mult%repRing"></input></inputs><script><block
s="doDeclareVariables"><list><l>results</l><l>iterator</l></list></
block><block s="doSetVar"><l>results</l><block
s="reportNewList"><list></list></block></block><block
s="doSetVar"><l>iterator</l><l>0</l></block><block
s="doRepeat"><block s="reportListLength"><block var="movements"/></
block><script><block s="fork"><block s="reifyScript"><script><block
s="doAddToList"><block s="reportCallCC"><block
s="reportListItem"><block var="iterator"/><block var="movements"/></
block></block><block var="results"/></block></script><list></list></
block><list></list></block><block s="doChangeVar"><l>iterator</
l><l>1</l></block><custom-block s="yield"></custom-block></script></
block><block s="doWaitUntil"><block s="reportEquals"><block
s="reportListLength"><block var="movements"/></block><block
s="reportListLength"><block var="results"/></block></block></
block><block s="doReport"><block var="results"/></block></script></
block-definition><block-definition s="map %&apos;function&apos; over
%&apos;lists&apos;" type="reporter" category="lists"><header></
header><code></code><translations></translations><inputs><input
type="%repRing"></input><input type="%mult%l"></input></
inputs><script><block s="doWarp"><script><block
s="doDeclareVariables"><list><l>mapone</l><l>mapmany</l></list></
block><block s="doSetVar"><l>mapone</l><block
s="reifyScript"><script><block s="doIf"><custom-block s="empty?
%l"><block var="data"/></custom-block><script><block
s="doReport"><block s="reportNewList"><list></list></block></
block></script></block><block s="doReport"><block
s="reportCONS"><block s="evaluate"><block var="function"/
><list><block s="reportListItem"><l>1</l><block var="data"/></
block></list></block><block s="evaluate"><block var="mapone"/
><list><block s="reportCDR"><block var="data"/></block></list></
block></block></block></script><list><l>data</l></list></block></
block><block s="doSetVar"><l>mapmany</l><block
s="reifyScript"><script><block s="doIf"><custom-block s="empty?
%l"><block s="reportListItem"><l>1</l><block var="data lists"/></
block></custom-block><script><block s="doReport"><block
s="reportNewList"><list></list></block></block></script></
block><block s="doReport"><block s="reportCONS"><block
s="evaluate"><block var="function"/><custom-block s="map %repRing
over %mult%l"><block s="reifyReporter"><autolambda><block
s="reportListItem"><l>1</l><l/></block></autolambda><list></list></
block><list><block var="data lists"/></list></custom-block></
block><block s="evaluate"><block var="mapmany"/><list><custom-block
s="map %repRing over %mult%l"><block
s="reifyReporter"><autolambda><block s="reportCDR"><l/></block></
autolambda><list></list></block><list><block var="data lists"/></
list></custom-block></list></block></block></block></block></
```

```
script><list><l>data lists</l></list></block></block><block
s="doIfElse"><custom-block s="empty? %l"><block s="reportCDR"><block
var="lists"/></block></custom-block><script><block
s="doReport"><block s="evaluate"><block var="mapone"/><list><block
s="reportListItem"><l>1</l><block var="lists"/></block></list></
block></block></script><script><block s="doReport"><block
s="evaluate"><block var="mapmany"/><list><block var="lists"/></
list></block></block></script></block></script></block></script></
block-definition><block-definition s="empty? %&apos;data&apos;"
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></block></script></
block-definition><block-definition s="keep items such that
%&apos;pred&apos; from %&apos;data&apos;" type="reporter"
category="lists"><header></header><code></code><translations></
translations><inputs><input type="%predRing"></input><input
type="%l"></input></inputs><script><block s="doWarp"><script><block
s="doIf"><custom-block s="empty? %l"><block var="data"/></custom-
block><script><block s="doReport"><block s="reportNewList"><list></
list></block></block></script></block><block s="doIfElse"><block
s="evaluate"><block var="pred"/><list><block
s="reportListItem"><l>1</l><block var="data"/></block></list></
block><script><block s="doReport"><block s="reportCONS"><block
s="reportListItem"><l>1</l><block var="data"/></block><custom-block
s="keep items such that %predRing from %l"><block var="pred"/><block
s="reportCDR"><block var="data"/></block></custom-block></block></
block></script><script><block s="doReport"><custom-block s="keep
items such that %predRing from %l"><block var="pred"/><block
s="reportCDR"><block var="data"/></block></custom-block></block></
script></block></script></block></script></block-definition><block-
definition s="combine with %&apos;function&apos; items of
%&apos;data&apos;" 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
%&apos;words&apos;" 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></block></script></block></script></block-definition><block-definition s="list $arrowRight sentence %'data'" type="reporter" category="operators"><header></header><code></code><translations></translations><inputs><input type="%l"></input></inputs><script><block s="doWarp"><script><block s="doReport"><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="data"/></custom-block></block></script></block></script></block-definition><block-definition s="sentence $arrowRight list %'text'" type="reporter" category="operators"><header></header><code></code><translations></translations><inputs><input type="%txt"></input></inputs><script><block s="doWarp"><script><block s="doReport"><block s="reportTextSplit"><block var="text"/><l><option>whitespace</option></l></block></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="word $arrowRight list %'word'" type="reporter" category="operators"><header></header><code></code><translations></translations><inputs><input type="%txt"></input></inputs><script><block s="doWarp"><script><block s="doReport"><block s="reportTextSplit"><block var="word"/><l><option>letter</option></l></block></block></script></block></script></block-definition><block-definition s="sum %'nums'" type="reporter" category="operators"><comment x="0" y="0" w="202" collapsed="false">Takes any number of numbers as inputs (use the left and right arrowheads to adjust the number of input slots) and reports the result of adding them all, soISUM (4) (100) (8))reports 112.</comment><header></header><code></code><translations></translations><inputs><input type="%mult%n"></input></inputs><script><block s="doIf"><block s="reportEquals"><block var="nums"/><block s="reportNewList"><list></list></block></block><script><block s="doReport"><l>0</l></block></script></block><block s="doReport"><block s="reportSum"><block s="reportListItem"><l>1</l><block var="nums"/></block><custom-block s="sum %mult%n"><block

s="reportCDR"><block var="nums"/></block></custom-block></block></block></script></block-definition><block-definition s="product %'nums'" type="reporter" category="operators"><comment x="0" y="0" w="205" collapsed="false">Takes any number of numbers as inputs (use the left and right arrowheads to adjust the number of input slots) and reports the result of multiplying them all, so (PRODUCT (4) (100) (8))reports 3200.</comment><header></header><code></code><translations></translations><inputs><input type="%mult%n"></input></inputs><script><block s="doIf"><block s="reportEquals"><block var="nums"/><block s="reportNewList"><list></list></block></block><script><block s="doReport"><l>1</l></block></script></block><block s="doReport"><block s="reportProduct"><block s="reportListItem"><l>1</l><block var="nums"/></block><custom-block s="product %mult%n"><block s="reportCDR"><block var="nums"/></block></custom-block></block></block></script></block-definition><block-definition s="all of %'preds'" type="predicate" category="operators"><comment x="0" y="0" w="247.99999999999997" collapsed="false">Takes any number of Boolean (true/false) inputs (use the left and right arrowheads to adjust the number of input slots) and reports TRUE only if all of the inputs are TRUE, otherwise FALSE. Like AND but for multiple inputs.</comment><header></header><code></code><translations></translations><inputs><input type="%mult%boolUE"></input></inputs><script><block s="doIf"><block s="reportEquals"><block var="preds"/><block s="reportNewList"><list></list></block></block><script><block s="doReport"><block s="reportBoolean"><l><bool>true</bool></l></block></block></script></block><block s="doReport"><block s="reportAnd"><block s="evaluate"><block s="reportListItem"><l>1</l><block var="preds"/></block><list></list></block><custom-block s="all of %mult%boolUE"><block s="reportCDR"><block var="preds"/></block></custom-block></block></block></script></block-definition><block-definition s="any of %'preds'" type="predicate" category="operators"><comment x="0" y="0" w="240" collapsed="false">Takes any number of Boolean (true/false) inputs (use the left and right arrowheads to adjust the number of input slots) and reports TRUE if at least one input is TRUE, otherwise FALSE.</comment><header></header><code></code><translations></translations><inputs><input type="%mult%boolUE"></input></inputs><script><block s="doIf"><block s="reportEquals"><block var="preds"/><block s="reportNewList"><list></list></block></block><script><block s="doReport"><block s="reportBoolean"><l><bool>false</bool></l></block></block></script></block><block s="doReport"><block s="reportOr"><block s="evaluate"><block s="reportListItem"><l>1</l><block var="preds"/></block><list></list></block><custom-block s="any of %mult%boolUE"><block s="reportCDR"><block var="preds"/></block></custom-block></block></block></script></block-definition><block-definition s="yield" type="command" category="other"><header></header><code></code><translations></translations><inputs></inputs><script><block s="doWait"><l>0.00000000000001</l></block></script></block-definition><block-definition s="$robot create & start record move %'record_name' with motor(s)

```
%&apos;motors input&apos;" type="command"
category="control"><comment x="0" y="0" w="230.00000099999988"
collapsed="false">Create and start the record of a definied
move..&#xD;&#xD;The &lt;record_name&gt; input is used to store the
recorded move. The move is stored in the directory where you started
the web server (with the command &quot;$robot-snap $robot-ergo&quot;
for example), and can be replayed even if you close Snap! &#xD;
&#xD;The motor(s) input can accept :&#xD;- string of a motor
name&#xD;- string of many motors separed with spaces&#xD;- a Snap!
list of motors like the reporter block &quot;$robot all
motors&quot;&#xD;&#xD;If the motor(s) input is empty, all motors
will be recorded.</comment><header></header><code></
code><translations></translations><inputs><input
type="%s">move_name</input><input type="%s"></input></
inputs><script><block s="doDeclareVariables"><list><l>motors_list</
l><l>complete motor list</l><l>complete aliases list</l></list></
block><block s="doSetVar"><l>motors_list</l><block
s="reportNewList"><list></list></block></block><block
s="doSetVar"><l>complete motor list</l><custom-block s="$robot all
motors"></custom-block></block><block s="doIf"><block
s="reportIsIdentical"><block var="record_name"/><l></l></
block><script><custom-block s="$robot popup %txt"><l>Input error,
record name must not be empty</l></custom-block><block
s="doReport"><l></l></block></script></block><block
s="doIfElse"><block s="reportEquals"><block var="motors input"/
><l></l></block><script><block s="doReport"><block
s="reportURL"><block s="reportJoinWords"><list><custom-block
s="$robot robot URL"></custom-block><l>/primitive/MoveRecorder/</
l><block var="record_name"/><l>/start/</l><custom-block s="combine
with %repRing items of %l"><block
s="reifyReporter"><autolambda><block
s="reportJoinWords"><list><block var="#1"/><l>;</l><block var="#2"/
></list></block></autolambda><list><l>#1</l><l>#2</l></list></
block><custom-block s="$robot all motors"></custom-block></custom-
block></list></block></block></block></script><script><block
s="doIfElse"><block s="reportIsA"><block var="motors input"/
><l><option>list</option></l></block><script><block
s="doSetVar"><l>motors_list</l><custom-block s="append
%mult%l"><list><block var="motors_list"/><block var="motors input"/
></list></custom-block></block></script><script><block
s="doIfElse"><block s="reportOr"><block s="reportIsA"><block
var="motors input"/><l><option>number</option></l></block><block
s="reportIsA"><block var="motors input"/><l><option>text</option></
l></block></block><script><block s="doSetVar"><l>motors_list</
l><custom-block s="append %mult%l"><list><block var="motors_list"/
><block s="reportTextSplit"><block var="motors input"/
><l><option>whitespace</option></l></block></list></custom-block></
block></script><script><custom-block s="$robot popup %txt"><l>Input
error, you should look at help (right click on the bock)</l></
custom-block></script></block></script></block></script></
block><custom-block s="for each %upvar of %l %cs"><l>m</l><block
var="motors_list"/><script><block s="doIf"><block
s="reportNot"><block s="reportListContainsItem"><block var="complete
motor list"/><block var="m"/></block></block><script><block
```

s="doIf"><block s="reportEquals"><block var="complete aliases list"/><l>0</l><comment w="90" collapsed="false">Set all aliases here for optimisation issues</comment></block><script><block s="doSetVar"><l>complete aliases list</l><custom-block s="$robot all motors groups"></custom-block></block></script></block><block s="doIfElse"><block s="reportListContainsItem"><block var="complete aliases list"/><block var="m"/></block><script><block s="doSetVar"><l>motors_list</l><custom-block s="append %mult%l"><list><block var="motors_list"/><custom-block s="$robot motors in group %txt"><block var="m"/></custom-block></list></custom-block></block></script><script><custom-block s="$robot popup %txt"><block s="reportJoinWords"><list><l>Motor </l><block var="m"/><l>does not exist in your robot. </l></list></block></custom-block><block s="doReport"><l></l></block></script></block></script></custom-block><custom-block s="$robot set motor(s) %s %txt"><block var="motors_list"/><l>compliant</l></custom-block><block s="doReport"><block s="reportURL"><block s="reportJoinWords"><list><custom-block s="$robot robot URL"></custom-block><l>/primitive/MoveRecorder/</l><block var="record_name"/><l>/start/</l><custom-block s="combine with %repRing items of %l"><block s="reifyReporter"><autolambda><block s="reportJoinWords"><list><block var="#1"/><l>;</l><block var="#2"/></list></block></autolambda><list><l>#1</l><l>#2</l></list></block><block var="motors_list"/></custom-block></list></block></block></block></script></block-definition><block-definition s="$robot stop record & save move %'record_name'" type="command" category="control"><comment x="0" y="0" w="489" collapsed="false">Stop recording the desired move record. Be careful, you must have previously defined a move record with the "create move ... with motor(s) ..." block</comment><header></header><code></code><translations></translations><inputs><input type="%s">move_name</input></inputs><script><block s="doDeclareVariables"><list><l>motors</l></list></block><block s="doSetVar"><l>motors</l><block s="reportTextSplit"><block s="reportURL"><block s="reportJoinWords"><list><custom-block s="$robot robot URL"></custom-block><l>/primitive/MoveRecorder/</l><block var="record_name"/><l>/get_motors</l></list></block></block><l>/</l></block></block><custom-block s="$robot set motor(s) %s %txt"><block var="motors"/><block s="reportBoolean"><l><bool>false</bool></l></block></custom-block><block s="doReport"><block s="reportURL"><block s="reportJoinWords"><list><custom-block s="$robot robot URL"></custom-block><l>/primitive/MoveRecorder/</l><block var="record_name"/><l>/stop</l></list></block></block></block></script></block-definition><block-definition s="$robot stop move %'record_name'" type="command" category="control"><header></header><code></code><translations></translations><inputs><input type="%s">move_name</input></inputs><script><block s="doReport"><block s="reportURL"><block s="reportJoinWords"><list><custom-block s="$robot robot URL"></custom-block><l>/primitive/MovePlayer/</l><block var="record_name"/><l>/stop</l></list></block></block></block></script></block-definition><block-definition s="$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="pool map %&apos;function&apos;
over %&apos;lists&apos;" type="reporter" category="lists"><comment
x="0" y="0" w="204" collapsed="false">Works as the map block (see
map help), but it proceeds iterations concurrently.</
comment><header></header><code></code><translations></
translations><inputs><input type="%repRing"></input><input
type="%mult%l"></input></inputs><script><block
s="doDeclareVariables"><list><l>results</l><l>iterator</
l><l>input_list</l><l>list</l></list></block><block
s="doSetVar"><l>results</l><block s="reportNewList"><list></list></
block></block><block s="doSetVar"><l>iterator</l><l>0</l></
block><block s="doRepeat"><block s="reportListLength"><block
s="reportListItem"><l>1</l><block var="lists"/></block></
block><script><block s="doChangeVar"><l>iterator</l><l>1</l></
block><block s="doSetVar"><l>input_list</l><block
s="reportNewList"><list></list></block></block><custom-block s="for
each %upvar of %l %cs"><l>list</l><block var="lists"/><script><block
s="doAddToList"><block s="reportListItem"><block var="iterator"/
><block var="list"/></block><block var="input_list"/></block></
script></custom-block><block s="fork"><block
s="reifyScript"><script><block s="doAddToList"><block
s="evaluate"><block var="function"/><block var="input_list"/></
block><block var="results"/></block></script><list></list></
block><list></list></block><custom-block s="yield"></custom-block></
script></block><block s="doWaitUntil"><block s="reportEquals"><block
s="reportListLength"><block var="results"/></block><block
s="reportListLength"><block s="reportListItem"><l>1</l><block
var="lists"/></block></block></block></block><block
s="doReport"><block var="results"/></block></script></block-
definition><block-definition s="$robot play concurrently moves
%&apos;inputs&apos;" type="reporter" category="control"><comment
x="0" y="0" w="260" collapsed="false">Play previous recorded move
concurrently. Inputs can be : &#xD;* move name (string)&#xD;* many
moves name separated by whitespace&#xD;*  any reporter block, like
sequential or play sequentialy</comment><header></header><code></
code><translations></translations><inputs><input type="%mult%s"></
input></inputs><script><block
s="doDeclareVariables"><list><l>move_names</l><l>reporters</
l><l>tmp_string</l><l>tmp_reporter</l></list></block><block
s="doSetVar"><l>move_names</l><block s="reportNewList"><list></
list></block></block><block s="doSetVar"><l>tmp_string</l><block
s="reportNewList"><list></list></block></block><block
s="doSetVar"><l>reporters</l><block s="reportNewList"><list></
list></block></block><custom-block s="for each %upvar of %l
%cs"><l>item</l><block var="inputs"/><script><block
s="doIfElse"><block s="reportOr"><block s="reportIsA"><block
var="item"/><l><option>text</option></l></block><block
s="reportIsA"><block var="item"/><l><option>number</option></l></
block></block><script><block s="doSetVar"><l>move_names</l><custom-
block s="append %mult%l"><list><block var="move_names"/><block
```

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s="reportTextSplit"><block var="item"/><l>;</l></block></list></
custom-block></block></script><script><block s="doIfElse"><block
s="reportIsA"><block var="item"/><l><option>list</option></l></
block><script><block s="doSetVar"><l>move_names</l><custom-block
s="append %mult%l"><list><block var="move_names"/><block var="item"/
></list></custom-block></block></script><script><block
s="doIfElse"><block s="reportIsA"><block var="item"/
><l><option>reporter</option></l></block><script><block
s="doAddToList"><block var="item"/><block var="reporters"/></
block></script><script><custom-block s="$robot popup %txt"><l>Input
is not valid. See help (right click on the block)</l></custom-
block></script></block></script></block></script></block></script></
custom-block><custom-block s="for each %upvar of %l %cs"><l>item</
l><block var="move_names"/><script><block s="fork"><block
s="reifyScript"><script><block s="doAddToList"><block
s="evaluate"><block s="reifyReporter"><autolambda><custom-block
s="$robot play move %txt | speed x %n"><l></l><l>1</l></custom-
block></autolambda><list></list></block><list><block var="item"/></
list></block><block var="tmp_string"/></block></script><list></
list></block><list></list></block><custom-block s="yield"></custom-
block></script></custom-block><block s="doSetVar"><l>tmp_reporter</
l><custom-block s="$robot concurrent %mult%repRing"><list><block
s="reifyReporter"><script></script><list></list></block></list></
custom-block></block><block s="doWaitUntil"><block
s="reportEquals"><block s="reportListLength"><block
var="tmp_string"/></block><block s="reportListLength"><block
var="move_names"/></block></block></block><block
s="doReport"><custom-block s="append %mult%l"><list><block
var="tmp_reporter"/><block var="tmp_string"/></list></custom-
block></block></script><scripts><comment x="131" y="660.2" w="265"
collapsed="false">TODO : understand why a sequential input blocks
return items on a list rather than separated with whitespace</
comment></scripts></block-definition><block-definition s="$robot
play sequentially moves %&apos;inputs&apos;" type="reporter"
category="control"><comment x="0" y="0" w="267"
collapsed="false">Play previous recorded moves sequentialy. Inputs
can be : &#xD;∗ move name (string)&#xD;∗ many moves name separated
by whitespace&#xD;∗ any reporter block like concurent or play
concurently</comment><header></header><code></code><translations></
translations><inputs><input type="%mult%s"></input></
inputs><script><block s="doDeclareVariables"><list><l>move_names</
l><l>reporters</l><l>out</l></list></block><block
s="doSetVar"><l>move_names</l><block s="reportNewList"><list></
list></block></block><block s="doSetVar"><l>reporters</l><block
s="reportNewList"><list></list></block></block><custom-block s="for
each %upvar of %l %cs"><l>item</l><block var="inputs"/
><script><block s="doIfElse"><block s="reportOr"><block
s="reportIsA"><block var="item"/><l><option>text</option></l></
block><block s="reportIsA"><block var="item"/><l><option>number</
option></l></block></block><script><block
s="doSetVar"><l>move_names</l><custom-block s="append
%mult%l"><list><block var="move_names"/><block
s="reportTextSplit"><block var="item"/><l>;</l></block></list></
custom-block></block></script><script><block s="doIfElse"><block
```

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s="reportIsA"><block var="item"/><l><option>list</option></l></
block><script><block s="doSetVar"><l>move_names</l><custom-block
s="append %mult%l"><list><block var="move_names"/><block var="item"/
></list></custom-block></block></script><script><block
s="doIfElse"><block s="reportIsA"><block var="item"/
><l><option>reporter</option></l></block><script><block
s="doAddToList"><block var="item"/><block var="reporters"/></
block></script><script><custom-block s="$robot popup %txt"><l>Input
is not valid. See help (right click on the block)</l></custom-
block></script></block></script></block></script></block></script></
custom-block><block s="doReport"><custom-block s="join words
%mult%txt"><list><custom-block s="combine with %repRing items of
%l"><block s="reifyReporter"><autolambda><custom-block s="join words
%mult%txt"><list><l></l><l></l></list></custom-block></
autolambda><list></list></block><custom-block s="map %repRing over
%mult%l"><block s="reifyReporter"><autolambda><custom-block
s="$robot play move %txt | speed x %n"><l></l><l>1</l></custom-
block></autolambda><list></list></block><list><block
var="move_names"/></list></custom-block></custom-block><custom-block
s="$robot sequence %mult%repRing"><list><block
s="reifyReporter"><script></script><list></list></block></list></
custom-block></list></custom-block></block></script></block-
definition><block-definition s="$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="items %&apos;i&apos; to
%&apos;j&apos; of %&apos;list&apos;" type="reporter"
category="lists"><comment x="0" y="0" w="146"
collapsed="false">Return a sublist which contains items in the
interval of 2 input numbers.&#xD;Original list is not modified.</
comment><header></header><code></code><translations></
translations><inputs><input type="%n"></input><input type="%n"></
input><input type="%l"></input></inputs><script><block
s="doDeclareVariables"><list><l>result</l></list></block><block
s="doSetVar"><l>result</l><block s="reportNewList"><list></list></
block></block><block s="doIf"><block s="reportLessThan"><block
var="i"/><l>0</l></block><script><block s="doSetVar"><l>i</l><block
s="reportSum"><block s="reportListLength"><block var="list"/></
block><block var="i"/></block></block></script></block><block
s="doIf"><block s="reportLessThan"><block var="j"/><l>0</l></
block><script><block s="doSetVar"><l>j</l><block
s="reportSum"><block s="reportListLength"><block var="list"/></
block><block var="j"/></block></block></script></block><custom-block
s="for %upvar = %n to %n %cs"><l>elem</l><custom-block s="if %b then
%anyUE else %anyUE"><block var="i"/><block var="i"/><l>1</l></
custom-block><custom-block s="if %b then %anyUE else %anyUE"><block
var="j"/><block var="j"/><block s="reportListLength"><block
var="list"/></block></custom-block><script><block
```

s="doAddToList"><block s="reportListItem"><block var="elem"/><block var="list"/></block><block var="result"/></block></script></custom-block><block s="doReport"><block var="result"/></block></script></block-definition><block-definition s="$robot play move %'record_name' in reverse | speed x %'speed'" type="reporter" category="control"><comment x="0" y="0" w="230.00000099999988" collapsed="false">Play in reverse the movement of a previous recorded move. The <record_name> input is the name of a .record filename which should be in the same directory where you started the web server (with the command "$robot-snap $robot-ergo" for example).You can change the play speed with the <speed> input.</comment><header></header><code></code><translations></translations><inputs><input type="%s">move_name</input><input type="%n">1</input></inputs><script><block s="doDeclareVariables"><list><l>time</l></list></block><block s="doDeclareVariables"><list><l>wait</l></list></block><block s="doSetVar"><l>wait</l><block s="reportBoolean"><l><bool>true</bool></l></block></block><block s="doIfElse"><block s="reportListContainsItem"><custom-block s="$robot all recorded moves"></custom-block><block var="record_name"/></block><script><block s="doSetVar"><l>time</l><block s="reportURL"><block s="reportJoinWords"><list><custom-block s="$robot robot URL"></custom-block><l>/primitive/MovePlayer/</l><block var="record_name"/><l>/start/</l><block var="speed"/><l>/backwards</l></list></block></block></block><block s="doIf"><block var="wait"/><script><block s="doWait"><block var="time"/></block></script><comment w="90" collapsed="false">ugly wait to stop feature.TODO : change with a looking at running primitive</comment></block></script><script><custom-block s="$robot popup %txt"><block s="reportJoinWords"><list><l>Error : <</l><block var="record_name"/><l>> is not is the avaible records (look at the block $robot all records to see all recorded moves) </l><custom-block s="$robot all recorded moves"></custom-block></list></block></custom-block></script></block><block s="doReport"><block var="record_name"/></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="index of %'var' in %'list'" type="reporter" category="lists"><comment x="0" y="0" w="194" collapsed="false">Return the index of a item in a list</comment><header></header><code></code><translations></translations><inputs><input type="%s"></input><input type="%l"></input></inputs><script><block s="doDeclareVariables"><list><l>i</l></list></block><block s="doSetVar"><l>i</l><l>1</l></block><custom-block s="for each %upvar of %l %cs"><l>m</l><block var="list"/><script><block s="doIf"><block s="reportEquals"><block var="m"/><block var="var"/></block><script><block

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s="doReport"><block var="i"/></block></script></block><block
s="doChangeVar"><l>i</l><l>1</l></block></script></custom-
block><block s="doReport"><l>0</l></block></script></block-
definition><block-definition s="$robot http:// %&apos;input&apos;"
type="reporter" category="other"><header></header><code></
code><translations></translations><inputs><input type="%s"></
input></inputs><script><block
s="doDeclareVariables"><list><l>output</l><l>timer_init</l></list></
block><block s="doSetVar"><l>timer_init</l><block s="getTimer"></
block></block><block s="doSetVar"><l>output</l><block
s="reportNewList"><list></list></block></block><block
s="fork"><block s="reifyScript"><script><block
s="doAddToList"><block s="reportURL"><block var="input"/></
block><block var="output"/></block></script><list></list></
block><list></list></block><block s="doWaitUntil"><block
s="reportOr"><block s="reportGreaterThan"><block
s="reportDifference"><block s="getTimer"></block><block
var="timer_init"/></block><l>3.5</l></block><block
s="reportGreaterThan"><block s="reportListLength"><block
var="output"/></block><l>0</l></block></block></block><block
s="doIf"><block s="reportGreaterThan"><block
s="reportDifference"><block s="getTimer"></block><block
var="timer_init"/></block><l>3</l></block><script><custom-block
s="$robot popup %txt"><block s="reportJoinWords"><list><l>Robot is
not connected to </l><block var="input"/></list></block></custom-
block><block s="doReport"><l>error</l></block></script></
block><block s="doReport"><block s="reportListItem"><l>1</l><block
var="output"/></block></block></script><scripts><script
x="452.9853535625002" y="75.0000070000001"><custom-block s="$robot
all motors"></custom-block></script><script x="539.8916025624999"
y="95.00000100000011"><block s="reportURL"><block var="input"/></
block></script><script x="397.2265645" y="240.00000399999993"><block
s="doSetVar"><l>output</l><l>0</l></block></script><script x="433"
y="179.2"><block s="reportListLength"><l/></block></script><script
x="701.5517588124999" y="139.00000500000004"><block
s="reportStringSize"><l>world</l></block></script></scripts></block-
definition><block-definition s="$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 "</l><block var="primitive"/
><l>" is not in the aivaible primitives of your robot :  </
l><custom-block s="combine with %repRing items of %l"><block
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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="$robot popup %txt"><block s="reportJoinWords"><list><l>Action </
l><block var="action"/><l> is not valid :  </l><custom-block
s="combine with %repRing items of %l"><block
s="reifyReporter"><autolambda><custom-block s="join words
%mult%txt"><list><l></l><l></l></list></custom-block></
autolambda><list></list></block><block var="keyword list"/></custom-
block></list></block></custom-block><block s="doReport"><l></l></
block></script><script><block s="doReport"><block
s="reportURL"><block s="reportJoinWords"><list><custom-block
s="$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="$robot get %&apos;input&apos; of
behaviour %&apos;primitive&apos;" type="reporter"
category="sensing"><header></header><code></code><translations></
translations><inputs><input type="%s"
readonly="true">methodes<options>methodes&#xD;properties</options></
input><input type="%txt"></input></inputs><script><block
s="doDeclareVariables"><list><l>all primitives</l><l>keyword list</
l></list></block><block s="doSetVar"><l>all primitives</l><custom-
block s="$robot get %s behaviours"><l>all</l></custom-block></
block><block s="doSetVar"><l>keyword list</l><block
s="reportNewList"><list><l>properties</l><l>methodes</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 </l><block
var="primitive"/><l> is not in the aivaible primitives of your
robot :  </l><custom-block s="combine with %repRing items of
%l"><block s="reifyReporter"><autolambda><custom-block s="join words
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