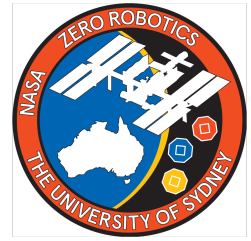




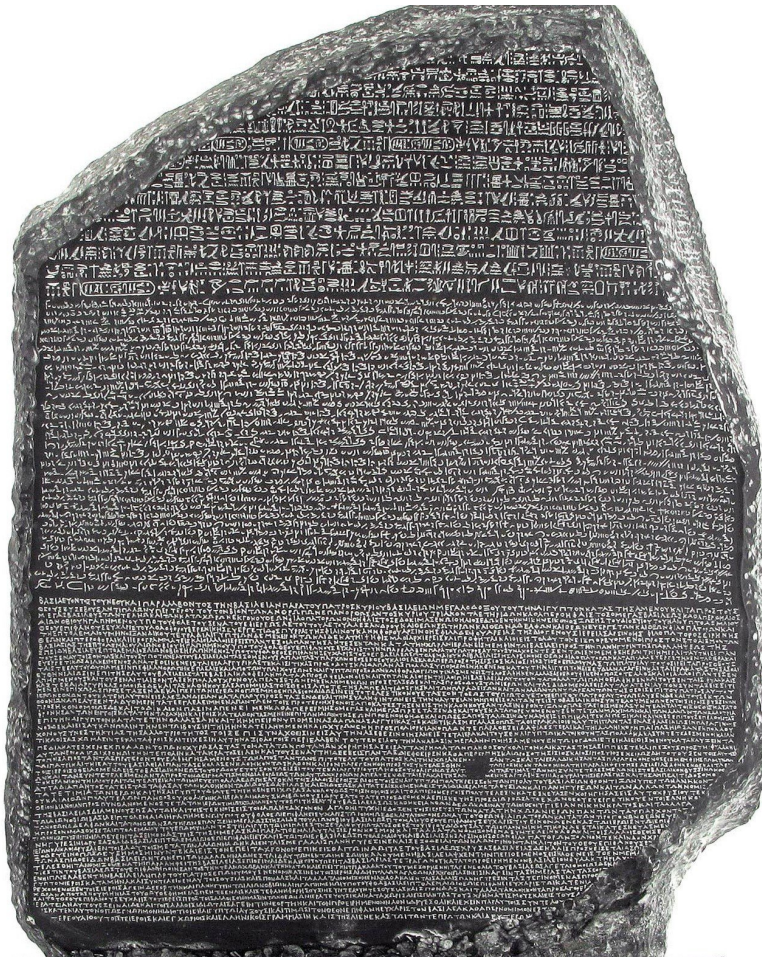
THE UNIVERSITY OF  
SYDNEY



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## Zero Robotics Rosetta sheet - Language Reference

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# 1 Language Translation table

Operation	ZR C	ZR Matlab	Python	Java
Variable declaration	<code>int a = 2;</code>	<code>a = 2;</code>	<code>a = 2</code>	<code>int a = 2;</code>
Array declaration	<code>float vec[3] = {1.0,2.0,3.0};</code>	<code>vec = [1.0, 2.0, 3.0];</code>	<code>vec = [1.0, 2.0, 3.0]</code>	<code>float[] vec = {1.0,2.0,3.0};</code>
Data Indexing	<code>vec[0] = 4.2;</code>	<code>vec(1) = 4.2;</code>	<code>vec[1] = 4.2</code>	<code>vec[0] = 4.2;</code>
if statement	<pre> if (a == 3){     DEBUG(("a is 3")); } else if (a&lt;3){     DEBUG(("a &lt; 3")); } else {     DEBUG(("a &gt; 3")); } </pre>	<pre> if a == 3     api.DEBUG('a is 3') elseif a&lt;3     api.DEBUG('a &lt; 3') else     api.DEBUG('a &gt; 3') end </pre>	<pre> if a == 3:     print 'a is 3' elif a &lt; 3:     print 'a &lt; 3' else:     print 'a &gt; 3' </pre>	<pre> if (a == 3){     System.out.println("a is 3"); } else if (a&lt;3){     System.out.println("a &lt; 3"); } else {     System.out.println("a &gt; 3"); } </pre>
for loop	<pre> int i; for(i = 1; i&lt;10; i=i+2){     DEBUG(("Print %i", i)); } </pre>	<pre> for i = 1:2:10     api.DEBUG("Print %i", i) end </pre>	<pre> for i in range(1,10, 2):     print 'Print ',i </pre>	<pre> for(int i = 1; i&lt;10; i=i+2){     System.out.println("Print" + i); } </pre>
while loop	<pre> while(i % 10&lt;9){     DEBUG(("%i",i));     i++; } </pre>	<pre> while (mod(i,10)&lt;9)     api.DEBUG("%i",i)     i = i+1; end </pre>	<pre> while(i % 10&lt;9):     print i     i += 1 </pre>	<pre> while(i % 10&lt;9){     System.out.println(i);     i++; } </pre>

Operation	ZR C	ZR Matlab	Python	Java
Function definition	<pre>void foo(float a; float b){     return (a+b)/2; }</pre>	<pre>function out = foo(a, b)     out = (a+b)/2; end</pre>	<pre>def foo(a, b):     return (a+b)/2</pre>	<pre>public static float foo(float a, float b) {     return (a+b)/2; }</pre>
Case statement	<pre>switch (i){     case 1:         DEBUG(("i",i));         break;     case 2:         DEBUG(("i",i+2));         break;     case 3:         DEBUG(("i",i+3));         break;     default:         DEBUG(("nada"));         break; }</pre>	<pre>switch (i)     case 1         api.DEBUG('i', i)     case 2         api.DEBUG('i', i+2)     case 3         api.DEBUG('i', i+3)     otherwise         api.DEBUG('nada') end</pre>	<pre># Python doesn't # offer a switch # statement as per say</pre>	<pre>switch (i){     case 1:         System.out.println(i);         break;     case 2:         System.out.println(i+2);         break;     case 3:         System.out.println(i+3);         break;     default:         System.out.println("nada");         break; }</pre>
Comment	<pre>// This is a comment /*And a multiline comment*/</pre>	<pre>% This is a comment  %{And a multiline comment%}</pre>	<pre># This is a comment</pre>	<pre>// This is a comment /*And a multiline comment*/</pre>