

## Examples

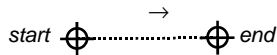
The following examples can be keyed into the VXM with a terminal program like HyperTerminal in Microsoft Windows, or the Velmex COSMOS software. Another method to send commands is with commercially available languages such as VisualBASIC, C, LabVIEW, etc.

The "<cr>" is a carriage return character ( <Enter> key on most keyboards). Command characters are in a rectangle like this:

C I3M400<cr>

A diagram of the resultant motion of a screw driven linear actuator is included showing start/end points, direction and commands. A letter over a point on the diagram represents the function occurring at that point. A "P" is a pause command, "U" user I/O command, and a "Z" is a motor 3 Index. Numbers shown in the diagrams represent Loop count values.

Example diagram:

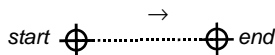


Example #1	Motors run	RAM used	Function
On-Line	-	-	Enable On-Line mode with echo on

E

Example #2	Motors run	RAM used	Function
Index	1	4	Incremental Index Motor #1 400 steps (1 rev.) CW

I1M400,R      or      I1M400<cr>R

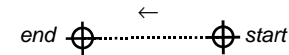


Example #3	Motors run	RAM used	Function
Clear	-	-	Clear all commands from current program

C

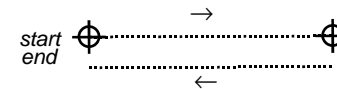
Example #4	Motors run	RAM used	Function
Index	1	4	Incremental Index Motor #2 600 steps CCW

I2M-600,R      or      I2M-600<cr>R



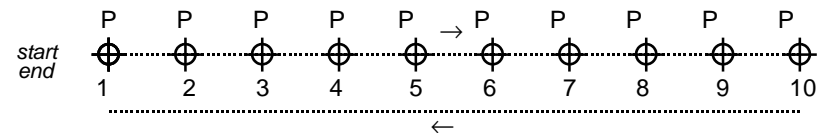
Example #5	Motors run	RAM used	Function
Auto-Reverse	1	8	Index Motor #1 both directions

I1M800,I-800,R      or      I1M800<cr>I1M-800<cr>R



Example #6	Motors run	RAM used	Function
Repeating Index	1	14	Repeating Index pausing 1 second between Indexes, return to start

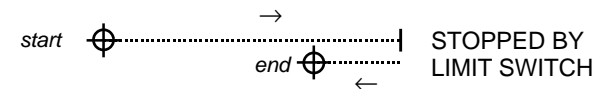
P10,I1M400,L10,I1M-3600,R



Example #7	Motors run	RAM used	Function
Home to Limit	1	15	Home Motor 1 to Positive Limit Switch and move 200 steps from Limit Switch and zero position

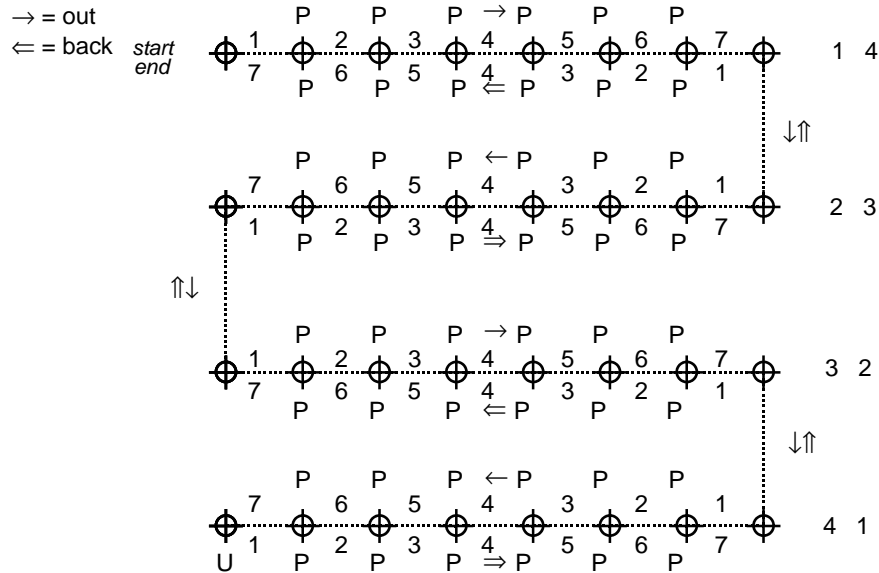
**CAUTION:** Positioning may be unreliable and limit switches may be damaged if speeds above 1000 steps/second are used for homing.

S1M600,I1M0,I1M-200,IA1M-0,R



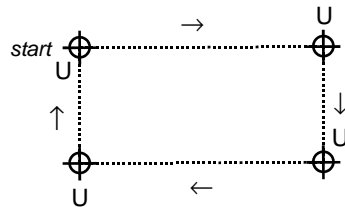
Example #8	Motors run	RAM used	Function
Raster Scan	2	23	Raster scan with 1 sec. pauses and waiting for "G" at the end; then run backwards through raster scan

I1M200,P10,L7,I2M400,L-4,U6,LM-2,R



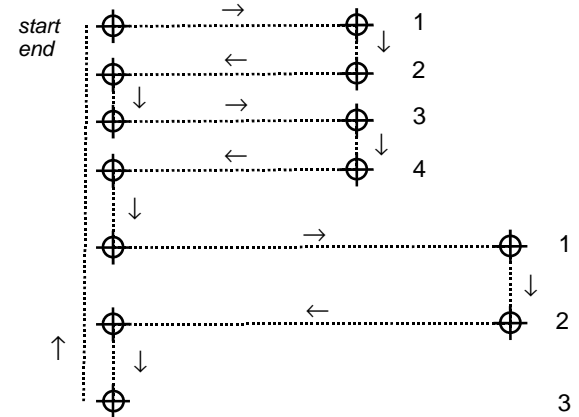
Example #9	Motors run	RAM used	Function
Rectangle	2	14	Rectangle, with Output and Wait at each corner

I1M2000,U1,I2M1000,U1,LM-3,L0,R



Example #10	Motors run	RAM used	Function
Raster Scans	2	27	Two Different Raster Scans using Loop-to-marker

I1M2000,I2M300,L-4,LM0,I2M600,I1M3000,L-3,IA2M0<cr>



This would do the entire pattern of the above example 5 times:

I1M2000,I2M300,L-4,LM0,I2M600,I1M3000,L-3,IA2M0,LM-0,LA5<cr>

Example #11	Motors run	RAM used	Function
X,Y Matrix	3	30	X,Y Matrix Moving Z Axis Up then Down at each Position

I3M2000,I3M-2000,I1M1600,L5,I2M400,L-3,IA1M0,IA2M0<cr>

