
'Description:

'This example code is an introduction to Galil programming

'Anything that is preceded with an apostrophe is a comment

'A label is preceded by a # sign and can followed by up to 7 characters

'The max line length for current generation controllers is 80 characters.

'Commands can be entered from a command line or in a program

'To execute programs, download the code into the controller and

'then issue XQ to start executing from the top. Issue XQ#LABEL

'to start executing at a specific label or line number.

'The code will execute until an EN ends the program or subroutine

#AUTO

'The #AUTO label is a special label that tells the controller to

'automatically start running as soon as power is applied.

'To perform a basic move, issue a PR command as shown here:

ACA= 1000000; 'acceleration

DCA= 1000000; 'deceleration

SPA= 20000; 'speed

PRA= 40000; 'distance

'This will move the X axis motor 40000cts.

BG A; 'start the motion

AM A; 'waits for motion to complete before continuing code execution

WT 2000; 'causes the controller to wait 2 seconds

EN

'To change parameters on multiple axes at once, use commas for each axis

#chg_spd

SP 20000,,40000; 'this specifies the speed for the X and Z axes

SP*= 20000; 'this sets the speed for ALL axes to 20000

'Axis designators can be ABCDEFGH or XYZWFGH

'The following two commands do exactly the same thing (set speed for axis 1). Galil recommends using A,B,C,D instead of X,Y,Z,W

SPA= 20000

SPX= 20000

EN

#operand

'Operands - the value of almost all commands can be interrogated by using

'the underscore and then the command like this:

speedx= _SPA; 'creates a variable (SpeedX) and sets it to the value of SPX

EN

#message

'Messages - to output something to the screen from a program, use the MG cmd

speedx= _SPA

MG speedx; 'outputs variable SpeedX

MG "The Speed of the X axis is ",_SPA

'or alternatively

MG "The Speed of the X axis is ",speedx," cts/sec"

EN

#var1

i= 1; 'defines the variable i to 1

'Variables can be up to 8 characters long (upper or lower case or mixed)

'They are case sensitive and should not be the same as commands.

'For example, PR is not a good choice for a variable name.

'To list all current variables use the LV command

,

EN

#init

i= 0

#loop; 'This is a label that defines the start of a subroutine

DPA= 0; 'Defines position of the X axis to zero

PRA= 100; 'Position relative move of 100cts

BG A; 'Begin motion

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AM A;      'Wait for motion to complete
WT 1000;   'Wait 1 second
PRA= -100; 'Move -100 counts (opposite direction)
BG A;AM A;WT 1000; 'to condense code, put multiple cmds on one line
i= i+1;    'Increment the variable i
JP #loop,i<5; 'Jump to the #LOOP label while i is less than 5
MG "DONE";  'Output a message when you are finished
EN;        'Ends the program
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