Programming: Inputs and Outputs

The many functions of the main RS-232 port:

- ECHO: 'Echo back all received characters
- SADDR#: 'Set address (0 to 120)
- SILENT: 'Suppress print messages
- TALK: 'Re-activate print message
- SLEEP: 'Ignore all commands except “WAKE”
- WAKE: 'Consider all following commands
- BAUD19200: 'Set baud rate to 19200 bps
- OCHN(RS2,0,N,38400,1,8,D): 'Open - No parity, 38.4k bps, 1 stop, 8 data, as Data
- OCHN(RS4,0,N,38400,1,8,C): 'Open as RS-485 port (with adapter) as Control
- IF LEN>0: 'Check to see if any (or how much) data is in the 16 byte input buffer, Data mode
- c=GETCHR: 'Get byte from buffer into variable “c” for Data mode
- PRINT(“Char Rcd:”,c,#13): 'Print text, data and ASCII code for carriage return

The many functions of the “G” port:

- UGI: 'Redefine as general input
- UGO: 'Redefine as general output (Open collector, pulled to 5V)
- UG: 'Return pin to default start function, when low motor starts motion
- UG=0: 'Set A Low (UG=a to set to variable “a”)
- UG=1: 'Set A High (Open collector, weakly pulled to 5V internally)
- a=UGI: 'Set variable “a” to digital input
- a=UGA: 'Set “a” to analog input, 0 to 1024 = 0 to 5V

The many functions of the Limit ports:

- UCI: 'Redefine Right Limit as general input (UDI for Left Limit)
- UCO: 'Redefine Right Limit as general output (UDO for Left Limit)
- UCP: 'Return pin to limit function (UDM for Left Limit)
- UC=0: 'Set Right Limit Low (UD=0 for Left, or UD=a to set to variable “a”)
- UC=1: 'Set Right Limit High (UD=1 for Left Limit)
- a=UCI: 'Set variable “a” to digital input (UDI for Left Limit)
- a=UCA: 'Set “a” to analog input, 0 to 1024 = 0 to 5V (UDA for Left Limit)

Counter functions of ports A and B:

- MF4: 'Set Mode Follow with full quadrature
- MFR: 'Set Mode Follow with ratio for gearing
- MS: 'Mode Step & Direction
- MC: 'Mode Cam
- MF0: 'Set follow mode to increment counter only
- MS0: 'Set counter mode to increment counter only
- a=CTR: 'Set variable “a” to counter value

General I/O functions of ports A and B:

- UAI: 'Set port A to input (UBI for port B)
- UAO: 'Set port A to output (UBO for port B)
- UA=0: 'Set port A Low (UB=0 for port B, or UB=a to set to variable “a”)
- UA=1: 'Set port A High (UB=1 for port B)
a=UAI  ‘Set variable “a” to digital input (UBI for port B)

a=UAA  ‘Set “a” to analog input, 0 to 1024 = 0 to 5V (UBA for port B)