

Return older Fanuc equipped CNC machine tools to profitability, eliminate expensive service calls while making them easier to use, easier to program, affordable to run and reliable. Replace those aging FANUC CNC controls with a modern CENTROID CNC control.

Machines in Motion, inc.
 http://machinesinmotion.com
 toll free (877) 733-5500

Spindle Control: Run Analog input Fanuc Inverters or install a new Inverter to run the stock Fanuc spindle motor.**

CNC PC choices:
 Your Windows 7 or 8 PC



OR:
 Our All-in-One PC
 \$1200 (11084tb)

Ethernet
 Cable to PC

OR:
 Our CNC PC \$1175
 cabinet mount (#11084)
 & your display



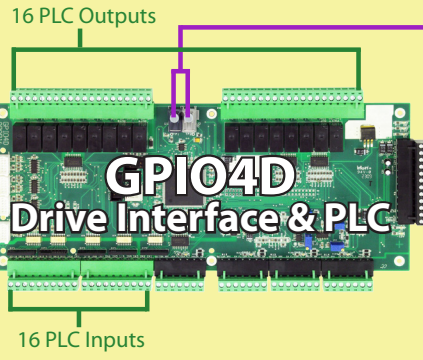
OR:
 Our CNC console
 \$3350 (#11082)
 Panel Mount console \$2675 (#11170)
 Touch screen option \$495 (#12568)



Optional
 Operator's
 Control Panel
 \$765 (#11077)

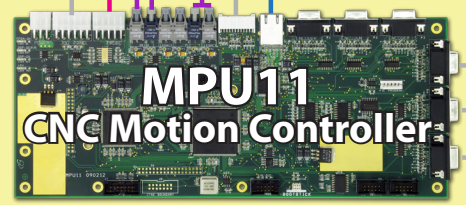


Optional
 Manual Pulse
 Generator (MPG)
 \$495 (#11069)



Fiber Optic Cables (Included)

Base Kit Includes:
MPU11 & GPIO4D
\$2345
 with CENTROID Mill or
 Lathe CNC Software
 (#11022)



Additional
 Encoders
 or Scales

Fiber Optic Cables (Included)

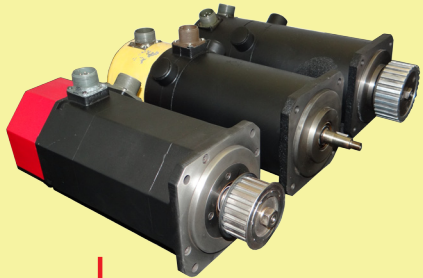
Optional PLC I/O Expansion Boards
 Add more I/O, up to 4 in any combination
 for up to 272 In / 272Out

PLC Add 1616
 16 Inputs (5, 12, 24 VDC)
 16 Relay Outputs
\$395 (#11025)

Add4AD4DA
 4 Digital to Analog Outputs
 4 Analog to Digital Inputs
\$525 (#11141)

PLC Add 6464
 64 Inputs 5V non isolated
 64 Outputs Open Collector
\$1300 (#11212)

Encoder Cables Up to 8 axis



Power Cables

CENTROID AC/DC servo drives
 30 amp AC/DC-30 \$1285 each(#12854)
 60 amp AC/DC-60 \$1380 each(#12855)

Reuse existing FANUC servo motors
 Red Cap, Yellow Cap or Black Cap.
 Encoder upgrade kits and cabling kits**
 are available, see back page for details.

Note: Run AC brushless servo motors **or** DC brush servo
 motors with the CENTROID AC/DC servo drive

Console, Display, & Cabinet opt. mounting hardware

- Console ext. cable in conduit (6 ft) **\$395** (#11028)
- Console cable in conduit (over 6ft) **\$28.50/ft** (#11028)
- Console mounting arm **\$299** (#10636)
- Console swivel mount (use w/ your arm) **\$125** (#10834)
- Rolling cabinet stand and display tray **\$595** (#10512)
- Rolling console stand **\$575** (#10695)
- Display/keyboard tray with arm **\$475** (#10240)
- Operators Pendant mounting hardware **\$76** (#10491)
- MPG internal cable 20' w/bulkhead con. **\$125** (#11086)
- Probe internal cable 6' w/bulkhead con. **\$50** (#11085)
- Operators control panel internal cable 20' **\$50** (#11029)
- OEM/DIY console cable connector set **\$35** (#13138)

Optional Touch Probe & Software
DP-4 \$1590 (#10405)
DP-7 \$4200 (#12431)



Optional
 Auto Tool Set
- TT-2 \$1350 (#12486)
- TT-1 \$725 (#10220)

FANUC Servo motor retrofit compatibility chart

Directly control popular Fanuc servo motors with the CENTROID AC/DC servo drive. Both AC and DC servo motors can be controlled. Some motors will require an encoder upgrade kit. Below is a list of FANUC Servo motors currently compatible with CENTROID CNC controls.

Note: This table is not a complete list of all Fanuc AC motors, just motors we have verified.

FANUC™



Red Cap Motor Model	CENTROID AC/DC drive	CENTROID/FANUC Encoder kit
0S,5S,6S,6S/3000,5S/3000,10S/3000,10S	AC/DC-30 (30 amp drive)	Part # 12859 or ^[1] #12876
20S, 20S/1500,20M,30,30S,30R,30/2000,40	AC/DC-60 (60 amp drive)	Part # 12859 or ^[1] #12876 ^[1] see manual on how to select kit
0,5,10	AC/DC-30 (30 amp drive)	Part #12859 \$370
20	AC/DC-60 (60 amp drive)	Part #12859 \$370
α3/3000,α6/2000,α12/2000,α12/3000,αC12/2000	AC/DC-30 (30 amp drive)	Part #12876 \$490
αC22/1500,α22/1500, α22/2000 α30/2000, α30/1200,α40/2000 ^[3]	AC/DC-60 (60 amp drive)	Part #12876 \$490
β-series	to be announced	to be announced



Yellow Cap Motor Model	CENTROID AC/DC drive	CENTROID/FANUC Encoder kit
0M,5M,10M w/stock encoder ^[2]	AC/DC-30 (30 amp drive)	Part #12896 ^[2] \$372
20M,30M w/stock encoder ^[2]	AC/DC-60 (60 amp drive)	Part #12896 ^[2] \$372
0M,5M,10M w/stock tach&resolver	AC/DC-30 (30 amp drive)	to be announced
20M,30M w/stock tach&resolver	AC/DC-60 (60 amp drive)	to be announced



Black Cap Motor Model	CENTROID AC/DC drive	CENTROID/FANUC Encoder kit
0,5 w/stock tach only	AC/DC-30 (30 amp drive)	Part #12903 \$370
10,20 w/stock tach only	AC/DC-60 (60 amp drive)	Part #12903 \$370
0,5 w/stock encoder ^[2]	AC/DC-30 (30 amp drive)	reuse stock encoder ^[2] or install new
10,20 w/stock encoder ^[2]	AC/DC-60 (60 amp drive)	reuse stock encoder ^[2] or install new

[1] See the CENTROID/Fanuc retrofit installation manual for more information and to determine which style encoder kit is required.

[2] The stock Yellow and Black cap FANUC encoders may be reused as is: plug and play with the correct cable. The CENTROID encoder kit is only necessary if stock encoder is missing, malfunctioning or you wish to upgrade to our High Resolution Encoder.

[3] Only α40/2000 motors without a cooling fan are supported

- Make or modify you own cables or buy pre-made Fanuc to CENTROID AC/DC drive motor cables up to 20' \$350ea.

Machines in Motion, Inc. 714 528-7061 sales@cncmachinesinmotion.com http://cncmachinesinmotion.com

The GPIO4d board set includes a separate motion control card "MPU11".

The GPIO4d card has 9 relay outputs and 16 inputs

The DC voltage used for inputs can vary from 5VDC, 12VDC, 24VDC. These inputs are grouped in groups of 4 so you can vary the voltage or change the common polarity for 4 inputs at a time.

Need additional I.O. ? There are plug in boards to provide as much as you require.

Servo control is formatted in Velocity mode. Configured to power Fanuc servo motors with the Centroid "ACDC" Drives.

The standard PLC programming that comes with your CNC software has the following features already configured.

4 axis of servo motion

VFD programmable spindle speed control

Spindle encoder input

Autolube pump and float sensor

flood and mist coolant

Monitors + & - axis limit inputs

Many other PLC configurations exist. If you require something special for your machine, just ask.