

The Centroid Hickory CNC Controller is a robust, EtherCAT-based, closed-loop CNC control system designed for high-performance, industrial-grade applications. Featuring an integrated 1GHz ARM Cortex A8 Motion Control CPU, the Hickory supports 8-axis fully interpolated simultaneous motion, with additional non-synchronous axes, delivering precise and versatile control for a wide range of machine tools, including CNC milling machines, routers, lathes, lasers, plasma cutters, and other specialty applications. Engineered for reliability and ease of integration, the Hickory communicates with the CNCPC via a fast, dependable Ethernet connection and leverages the EtherCAT protocol for seamless compatibility with approved AC brushless servo drives, such as Yaskawa Sigma 7, Delta ASDA-B3-E/ASDA-B3A-E, Glentek Gamma, LS Electric iX7NH, Estun Summa, Leadshine EL7/EL8, Inovance SV660N, see Hickory web page for up to date list of compatible drives. This closed-loop system supports absolute encoder feedback, eliminating the need for machine homing and ensuring precise positioning, even after power-off. Ideal for both new builds and retrofits, the Hickory simplifies installation, reduces cabling complexity, and minimizes electrical cabinet labor. Supported by comprehensive documentation, including PDF manuals and full-size wiring schematics, as well as the Centroid Community CNC Forum and optional factory engineer support, the Hickory delivers industrial-quality performance, precision, and flexibility for DIY enthusiasts and professional CNC integrators alike.

32 Optically Isolated Inputs
5,12 or 24 volt mix and match by header SIP!

(Expandable to a total of 144 i/o with Centroid ECat1616)

Inputs 1-8 Inputs 9-16 Inputs 17-24 Inputs 25-32

Two Analog Inputs (-10 to 10 vdc)
and Two Analog Outputs
configurable to:
+/- 10 vdc, 0-10 vdc, +/- 5 vdc, or 0-5 vdc
and
Two PWM Outputs

(Expandable with additional analog in/out
future Centroid ECat Analog card.)

Plug and Play
Relay Board Connectors
4 x 8 for 32 Relay Outputs
(Expandable to a total of 144 i/o with
Centroid ECat1616 card)

Fast On Board CNC CPU
w/ Automatic Firmware installation

Encoder/Scale/MPG port #3

Encoder/Scale/MPG port #2

Encoder/Scale/MPG port #1

(Expandable with additional Encoders/Scale/
MPG ports with the
Hickory Encoder Expansion card.)

Incoming Power
24 VDC
5 VDC
GND

Ethernet CNCPC
Communication

EtherCat Device Daisy Chain Port