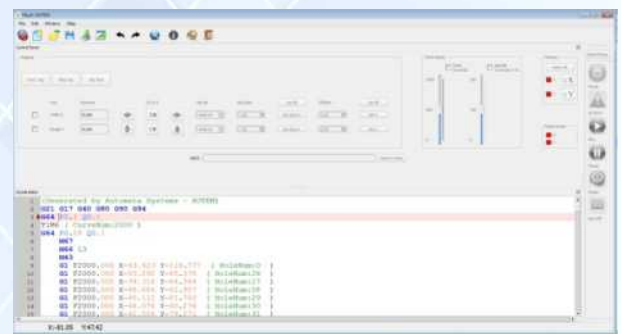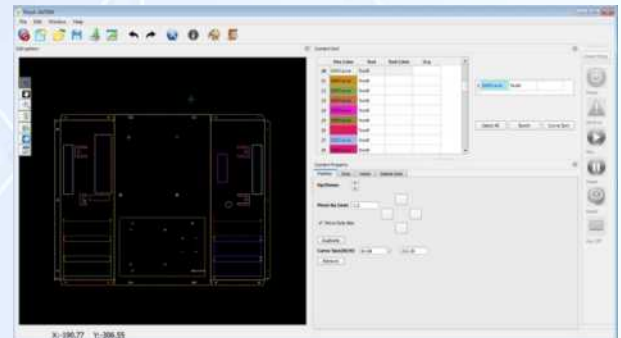# MeteorCNC

Hardware Features:

1. 4 axis pulse and direction differential outputs.
2. 250KHz jitter free pulsing for smooth motion.
3. 16 digital inputs(NPN and PNP can be configured).
4. 8 digital outputs.
5. Extra 8 digital inputs and 4 digital outputs can be made available if needed.
6. 1x 0-10v analog output for spindle speed control.
7. 1x optically isolated quadrature encoder input with index, can be used for MPG handwheel for jogging or can be used as spindle encoder for threading and taping.
8. USB pendrive interface for program copy with easy interface.
9. Internal storage of 1GB to store program files.
10. Network connection available for program copying, remote monitoring and trobleshooting.
11. Handheld with graphics LCD and 22 keys with user friendly interface.
12. Touch probe functionality for auto z axis wcs settings.
13. Lookahead with 50 blocks to enable high velocity path motion.
14. Velocity and acceleration management for each axis and overall path basis.
15. Interpolation with line, arc and helical motion is possible.
16. Key Shortcuts available for quick access for various functionality.
17. 9 work coordinate offsets.
18. Feed override and spindle override available.
19. Milling and turning canned cycles available.
20. Supporting ISO standard rs274d Gcodes and Mcodes.
21. Can be operated with either handheld OR pc based gui software.
22. 50 tools with different z axis offsets.

FloydCNC

Software Features:

○ Up to 9 axes simultaneous interpolation
○ RS274D ISO Gcode supported
○ Advanced lookahead algorithm for high feedrate control - upto 2000 blocks supported
○ Advanced intelligent contour blending and control for high feedrate and jerk free motion
○ Easy interface operator panel can be controlled with a mouse as well as touchscreen
○ Easy import of code from DXF, PLT, SVG, HPGL etc vector formats.
○ 3D display of cutting path with Pan Rotate and Zoom
○ 3D path Simulation
○ Tool processing library for upto 250 tools
○ Camming and 'E'- gearing options available
○ Ability to run large gcode files with millions of lines

Hardware Features:

○ Available in 2 options
○   64 bit x86 based with 6MHz pulse and direction or EtherCAT interface
○   32bit arm based with 500kHz pulse and direction output
○ Multiple high speed local IOs with 1Khz update
○ Remote High speed IOs with 1kHz update rate available on Expansion Bus
○ Programmable PLC to decide IO functions
○ Multiple Encoder Inputs for full closed loop control
○ Spindle Encoder input for threading and rigid tapping
○ Absolute encoder interface available for dual closed loop linear scale feedback
○ Hardware Phase Locked Loop (PLL) for optimal synchronization of multiple axes in hardware
○ Windows based hardened industrial rated PC available for ease of operation