



QUICK START GUIDE



ICON ELITE

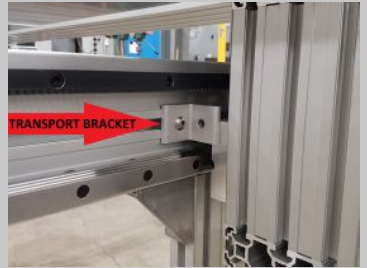


UNPACKING

- Place table in desired location
- Unwrap table and remove packing material
- Unpack boxes
- Check packing list

RE-ASSEMBLY

- Remove transport brackets that lock X-axis towers in place
- Mount control box
- Attach cutting surface to frame using 6 supplied brackets (or 4 brackets for 4x4 table)
- Mount torch home plate
- Attach workstation arm to table (if applicable)



UNPACKING & ASSEMBLING

ATTACHING TORCH HEIGHT

- Remove Z-axis from box
- Remove one mounting clamp from faceplate and set it aside
- Loosen remaining clamp slightly
- Slide torch height into place until clamp is inside groove
- Put second clamp into position and fasten to faceplate, leaving both clamps loose enough to slide torch height up and down
- Raise torch height until it is $1/2''$ above underside of gantry
- Tighten clamps just enough to hold torch height in place
- Using level, measure angle of gantry tower and adjust torch height angle to match, loosening clamps only as much as necessary
- Once level, tighten clamps well





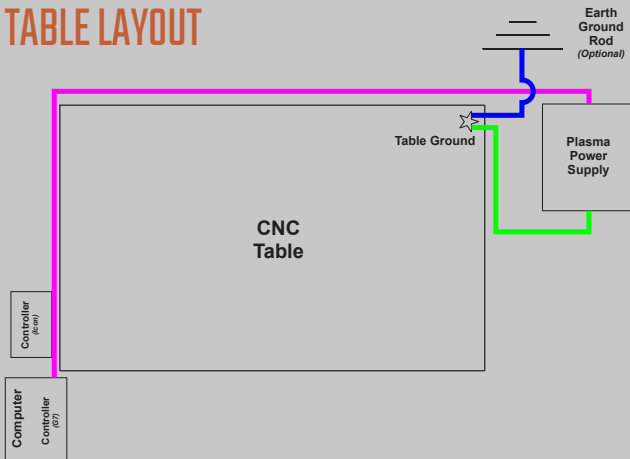
CONNECTING HARNESSES

Note: To avoid confusion, all ends are gendered and/or color-coded

- Connect harnesses to control box
- Connect harness to Z motor
- Connect torch height to ohmic clip box
- Connect ethernet cable between control box and computer
- Connect power cable between control box and power bar connected to standard 120V outlet
- Check all other connections on table
- Using supplied zip ties, secure cables to anchor points on console arm (if applicable)



TABLE LAYOUT



Plasma Interface Cable

Keep this cable well away from any sources of high frequency noise such as welders or other plasma units

Work Ground

Cut this cable to the shortest possible length and either attach permanently to the cutting surface (table ground) or clamp directly to work material

Earth Ground

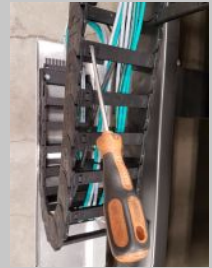
Maximum length of 10'-0" of 1/0 grounding cable attached securely at each end

Failure to comply with this layout will void warranty

SETTING UP YOUR TABLE

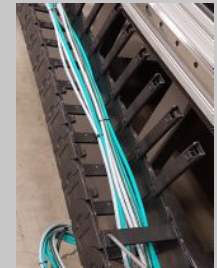
CONNECTING PLASMA

- Connect red end of plasma interface cable to plasma unit
- Connect blue end of plasma interface cable to control box
- At clamp end, cut work lead (a.k.a. ground cable) as short as possible, then re-attach clamp
- Connect work lead between plasma unit and table, making sure it is NOT COILED UP OR OVERLAPPING itself or other cables



INSTALLING TORCH

- Open cable carrier links and lay in torch cable
- Slide torch into supplied torch holder(s) and install consumables (see plasma unit instructions)
- Manually push Z-axis down to bottom hard stop
- Fasten torch holder(s) to Z-axis breakaway plate with torch tip near or resting on table
- Adjust torch cable with just enough slack over top of Z-axis for it to not get hung up over full range of Z-axis travel
- Close links



PLASMA SETUP



POWER UP SYSTEM

- Turn on computer
- Power up CNC controller using blue switch on box
- Turn on Xbox controller by holding down "X" button
- Wait about 60 seconds then open Mach3 program from task bar or start menu



SETTING TORCH HEIGHT

- In Mach3, click 'ESTOP' button to enable emergency stop system and make table live
- Click 'Home X' button to make table find its X-limit
- Click 'Home Y' button to make table find its Y-limit; torch should now be over homing location on table shelf
- Jog Z-axis up $\frac{1}{4}$ " above hard stop
- Release clamp side of torch holder(s) and slide torch down until it touches homing plate
- Re-tighten torch clamps
- Use 'Page Up' on keyboard to move Z-axis up to a safe rapid travel height (about $1\frac{1}{2}$ ")
- Click 'Home X/Y/Z' button to make table re-find all limits after which it will move up to clearance height and zero its location readouts



POWER ON & TORCH SETUP

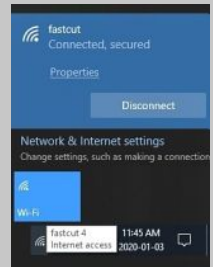
SQUARING UP TORCH

- Place a sheet of material on cutting surface
- Move torch over sheet
- Using a speed square, check if torch is square to cutting surface
- If not square to surface, loosen mounting clamps slightly and adjust, then tighten clamps well and 'Home X/Y/Z' again

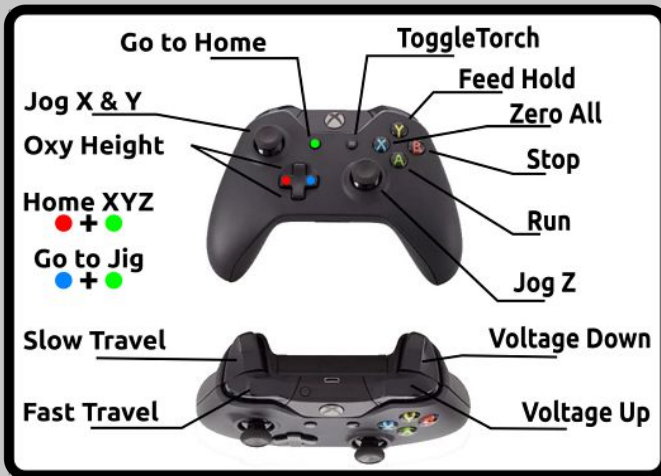


COMPUTER SETUP

- For sharing of files on your work network, and to enable Teamviewer support, connect the computer to your WiFi router



WIRELESS XBOX CONTROLLER

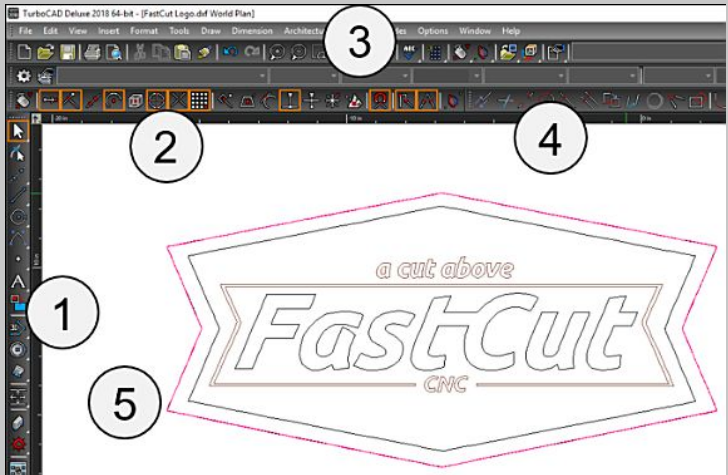


TURBOCAD






1. Open TurboCad
2. Open a new or existing drawing
3. Draw or modify the part
4. Save the part as a .dxf by clicking on 'Save As' under 'File' at top left corner and selecting .dxf as 'Save as type'
5. Give the part as descriptive a file name as possible
6. For future editing it's best to also save a copy as a .twc file
7. A training video is available at www.youtube.com/fastcutcnc or, for more comprehensive training, check out www.commandcad.com

THE TURBOCAD SCREEN

- 1 Drawing tools
- 2 Snap tools
- 3 Menus
- 4 Modifying tools
- 5 Drawing window



SHEETCAM

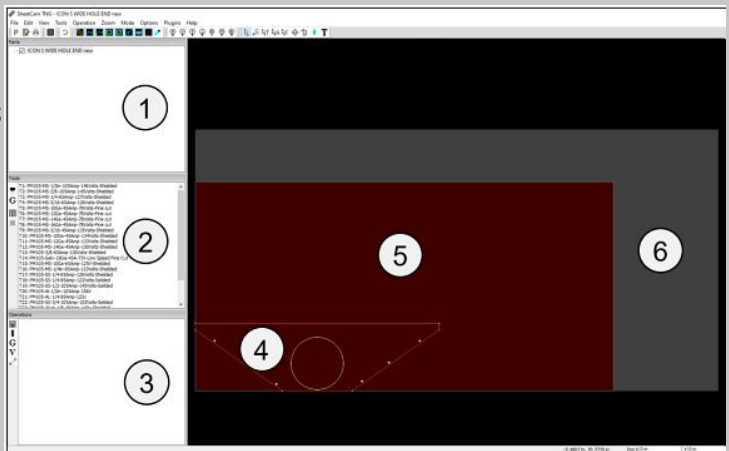
1. Open SheetCAM
2. In Parts panel: right-click, New part, choose DXF file, Open, OK
3. Select nesting tool , choose and right-click part, Array parts, create multiples, OK
4. Select toolpath tool 
5. In Operations panel: select jet cutting operation tool 
6. Choose appropriate cut parameters, OK
7. Using start point tool , make changes to your start points if needed
8. Click post processor  at top left to output G-Code

THE SHEETCAM SCREEN

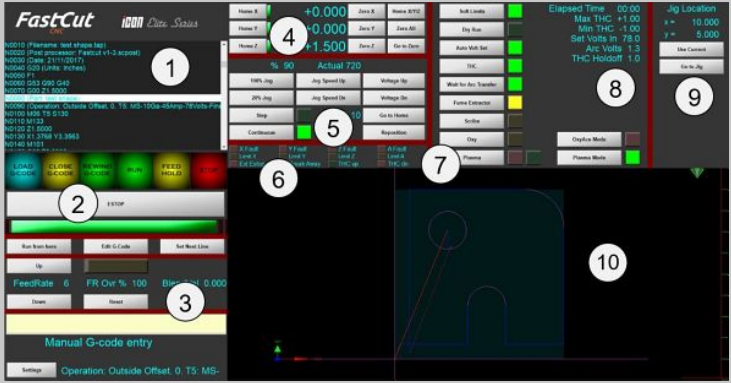
- 1 Parts
- 2 Tools
- 3 Operations

Preview window:

- 4 Part
- 5 Material
- 6 Working envelope



THE MACH3 SCREEN



- 1 G-Code viewing window
- 2 Control buttons
- 3 Feedrate override
- 4 Motor position and home status indicators
- 5 Manual jog & control options
- 6 LED warnings and indicators
- 7 Feature toggles
- 8 Torch height control settings & information
- 9 Jig feature
- 10 Cut path preview window

RUNNING G-CODE

1. Open Mach3, turn on Control Power Switch
2. Click 'ESTOP', when solid green click 'Home X/Y/Z'
3. Click 'LOAD G-CODE', find '.tap' file made in SheetCam
4. Ensure either 'Auto Volt Set' is on or 'Set Volts In' is set correctly
5. Make sure consumables are correct for cut & material
6. Make sure plasma is turned on and set to correct amperage
7. Drive torch over material to start point, press blue 'X' button on controller or 'Zero All' on screen
8. Click 'Run' or press green 'A' button on controller to start cut

COMMON PROBLEMS

SOLUTIONS

'CSMIO I/P Not Connected' error message

Fully shut down system, turn on controller power switch for a few seconds to discharge, then power back up as normal

Table won't move

Home table by pressing 'Home X/Y/Z'

ESTOP won't enable

Check manual E-Stop, torch breakaway and Soft Limits

Torch is diving into or climbing away from material

Make sure either 'Auto Volt Set' is on (with correct voltage set in tool), or correct voltage is set manually in 'Set Voltage In'

G-Code loaded but nothing showing in preview window

Look for brackets '()' in filename and either remove them using 'Edit G-Code', or go back to SheetCam, rename without brackets and re-post code

Torch climbs on its own

Check for stuck limit switch
Check for debris inside tip of torch shield

Cut quality is poor

Check cut settings
Inspect and replace consumables
Make sure you have clean, dry air

Cut angle is not square

Torch is not square to material
Consumables are worn
Cut height, speed or direction is incorrect

Dross on bottom edge of cut

Consumables worn: check and replace
Amperage too low: match to cut process and consumables
Cut speed incorrect: check cut charts



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