

# Probotix Fireball Comet Quickstart Guide

On the web at  
<http://WyoLUM.COM/?P=131>

This post is geared to getting your Probotix Fireball Comet up and running as easily as possible.

Before you begin, take some time to make sure your Comet is complete and you are ready to go. Consider this checklist the minimal requirements.

## Included in the Fireball Comet complete kit

- Fireball Comet CNC router
- Computer
- Display
- Mouse
- Keyboard
- Joystick
- Probotix ProboStep stepper motor controller
- Network connectivity (strongly recommended). Contact probotix for the root password to your system. Change the password.



## You Supply

- 7 Electrical outlets (power strip)
- 36x48 sturdy table for Router
- Computer table or stand

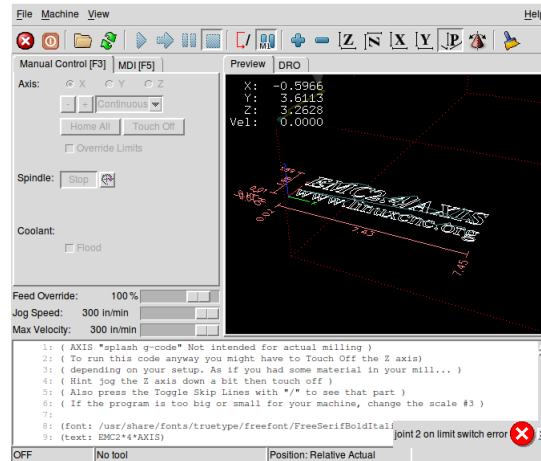
## Setup:

- Set up the computer, display, keyboard and mouse. parallel port Plug joystick into computer. As configured EMC2 will not run without the joystick plugged in.
- Connect the ProboStep parallel connector to the central parallel port. There are three parallel ports on the computer. As configured, only this port will work.
- Position the comet so that the cables reach the ProboStep controller.
- Connect the X, Y, Z and A cables as labeled. Connect the final round plug (unlabeled) in to the last remaining space.
- Connect the e-stop cable. This looks like a small head-phone jack.
- Connect spindle power cord into ProboStep
- Connect the four power plugs from the ProboStep into a power strip.



## Power on and Home:

- Boot up computer
- Start EMC2, Penguin Icon on Desktop (This starts the AXIS interface) If it does not come up, check that the joystick is plugged in
- Flip power switch on the ProboStep
- Clear ESTOP [F1] (The E stands for electronic)
- In EMC2 click Toggle Power button[F2] (Check that lower left hand corner of the window says ON)
- Click Home All. The gantry will move all axes to find the limit switches.



## Test Jog:

Two buttons need to be pressed simultaneously to manually control the router: a speed button with the right hand, and an axis button with the left. First enable the joystick by clicking the button indicated below by the green arrow. A red light is on when the joystick is enabled. Familiarize yourself with the action by driving your new router around the block. (Update: The left analog stick can also be used to control the  $x$  and  $y$  axis. The enable button toggles back and forth between the digital control and analog control. I find it easier to steer a single axis with the digital control)



## First drawing (with a pen)

- Tape a marker to the spindle clamp
- Tape a clean sheet of paper to lower left hand corner the spoil board
- Jog the gantry near the middle left hand side of the page and down so that the pen is just above the page.
- Click the Z axis radio button and then the Touch Off button. This sets the height of your material.
- The EMC2 test file should be loaded by default on startup. If not download the file from here.
- Step through the first through lines of G-Code until you are satisfied that everything is functioning well.
- Click the run button
- Congrats! Its beer thirty.

## Coming soon

- First Cut
- Troubleshooting

Look for updates on the web:

- [http://www.probotix.com/FireBall\\_Comet\\_cnc\\_router/](http://www.probotix.com/FireBall_Comet_cnc_router/)

