

Re: My cheap Chinese laser experience...

Re: My cheap Chinese laser experience...

Source: <http://sci.tech-archive.net/Archive/sci.electronics.cad/2008-01/msg00001.html>

- *From:* "john jardine" <john.jardine@xxxxxxxxxxx>
 - *Date:* Tue, 1 Jan 2008 17:08:42 -0000
-

"Neon Forests" <moog@xxxxxxxxxxx> wrote in message
news:311220072200149991%moog@xxxxxxxxxxx

In article <13ni96t2is1eke3@xxxxxxxxxxxxxxxxxxxx>, john jardine
<john.jardine@xxxxxxxxxxx> wrote:

"Neon Forests" <moog@xxxxxxxxxxx> wrote in message
news:301220072118486731%moog@xxxxxxxxxxx

<http://www.synthfool.com/laser>

An interesting read!.

The Roland should respond to something like "VS 1,1" added to the top of

a

HPGL print file, (ie Velocity select #1, for pen #1). Is this not an option?.

Thanks for reading. :)

It does respond to VS commands as low as 2 and that definitely helps in slowing it down, but it's not quite slow enough.

I have to do multipasses on some materials to cut them.

Also I'm pushing the limits on the whole current vs torque issue.

As I slow down it down, it has a bit of a problem with torque or overlapped stepper motor pulses (I haven't investigated yet) and so has repeatability issues.

But I'm just a hobbyist here and it's a good start.

I may end up ditching the motors and electronics and starting off with

Re: My cheap Chinese laser experience...

something better, but it was more along the whole "can it be done?" thing than trying to end up with a piece of reliable production machinery.

Kevin

Looks suspiciously like the stepper driver motors are being powered down (too early) to a 'holding torque only' condition about 1/2ms after an X or Y step pulse has ended (IC134).

A thought only, but maybe linking out R147 and R160 could keep motor power applied all the time, thus can deal with the slower step rates at full torque.

Personally, I'd be inclined to drive the motors directly from 2 external stepper drives