

# LPT port breakout board documentation

The breakout board can be used to connect multiply axis controllers to one LPT port of the PC.

It provides easy connectivity between the servo axis drivers and the PC with standard RJ45 patch cables.

Connect a maximum of 4 axis drivers to 1 LPT port.

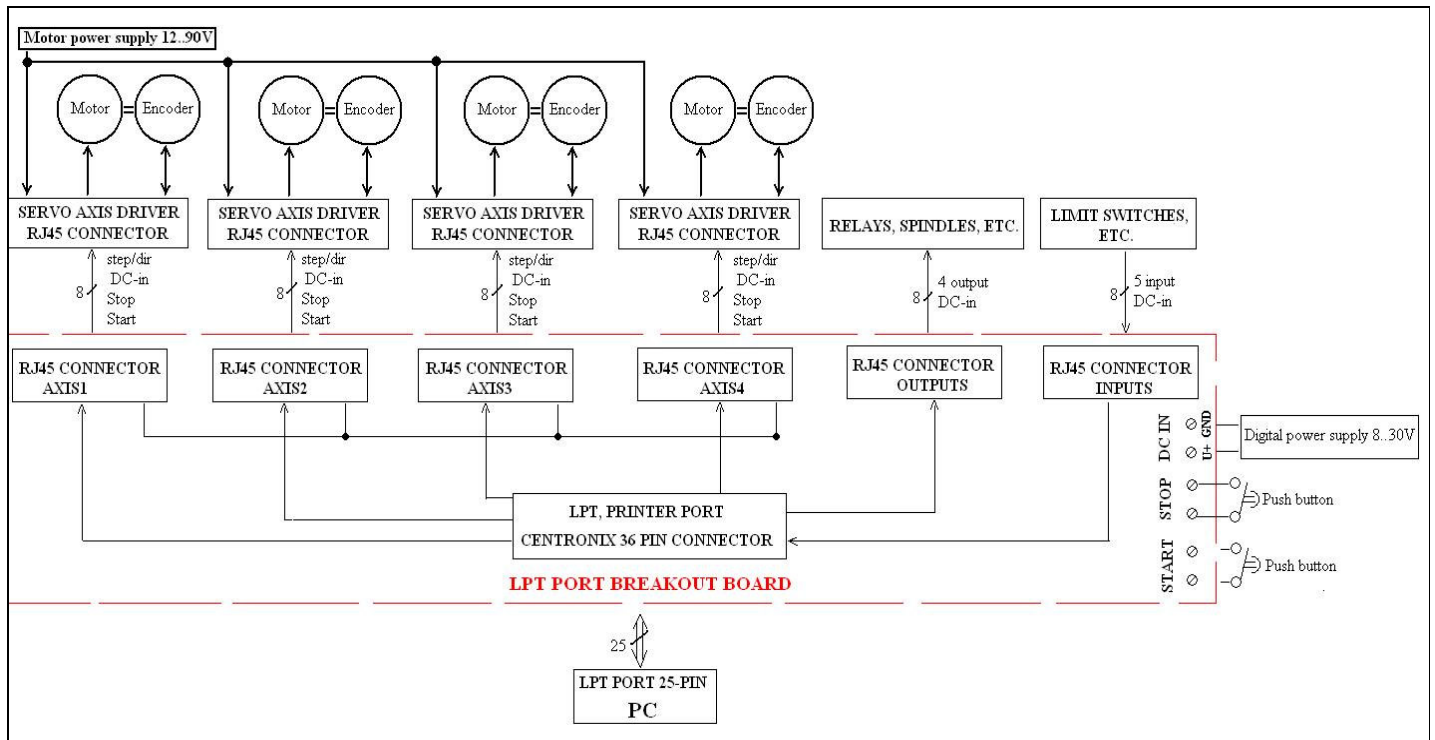
All unused 4 outputs and 5 inputs of the printer port can be accessed through the board.

Error signals of all axis drivers connected together on the board, if one axis driver fails with an error, it stops all other axis. Restart all controllers with an external start button.

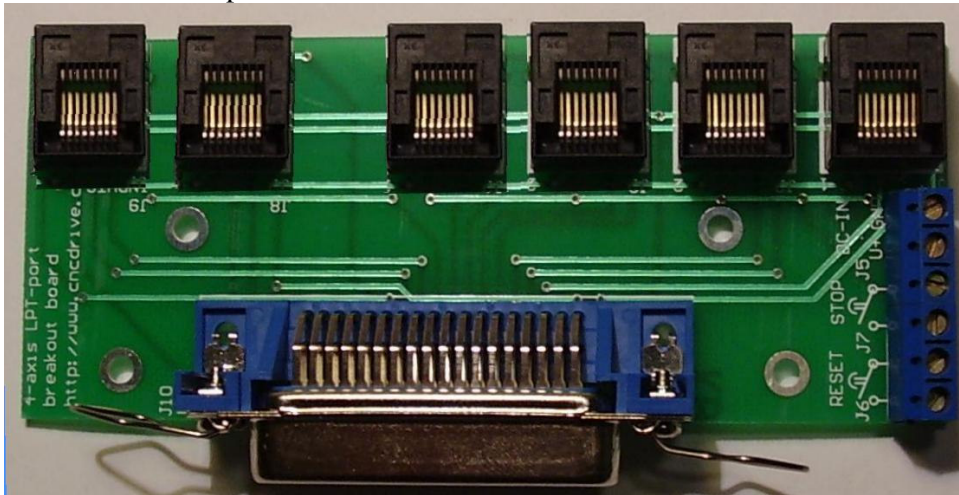
Stop and freewill all axis with pushing an externally connected Stop button.

Connect a common 8..30V power supply to power all axis drivers through the breakout board.

Schematics of the board and connections:



Picture of the LPT port breakout board:



**RJ45 connectors pinouts(4 axis driver connections, on the right on the above picture):**

- 1.) Step bit
- 2.) Direction bit
- 3.) LPT port common ground
- 4.) N/C (No internal connection)
- 5.) Reset signal (Output from breakout board)
- 6.) ERROR wire (Birirectional line)
- 7.) Digital DC power V+
- 8.) Digital DC power GND

**RJ45 connector inputs(on the left on the above picture)**

- 1.) LPT port 10. pin input
- 2.) LPT port 11. pin input
- 3.) LPT GND
- 4.) LPT port 12. pin input
- 5.) LPT port 13. pin input
- 6.) LPT port 32. pin input
- 7.) Digital DC power V+
- 8.) Digital DC power GND

**RJ45 connector outputs(2nd on the left on the above picture)**

- 1.) LPT port 1. pin output
- 2.) LPT port 36. pin output
- 3.) LPT GND
- 4.) LPT port 31. pin output
- 5.) LPT port 34. pin output
- 6.) N/C (No internal connection)
- 7.) Digital DC power V+
- 8.) Digital DC power GND

**Axis' conection to the servo drives pinouts (That's how to set up MACH2-3 or other LPT port controller software):**

**AXIS1:**

**Step - pin2  
Direction - pin3**

**AXIS2:**

**Step - pin4  
Direction - pin5**

**AXIS3:**

**Step - pin6  
Direction - pin7**

**AXIS4:**

**Step - pin8  
Direction - pin9**

**(Step pins can be configured to active high or low inside the servo controllers, it is important to configure controller program in the same way!)**

**More informations at:**  
**<http://www.cncdrive.com>**