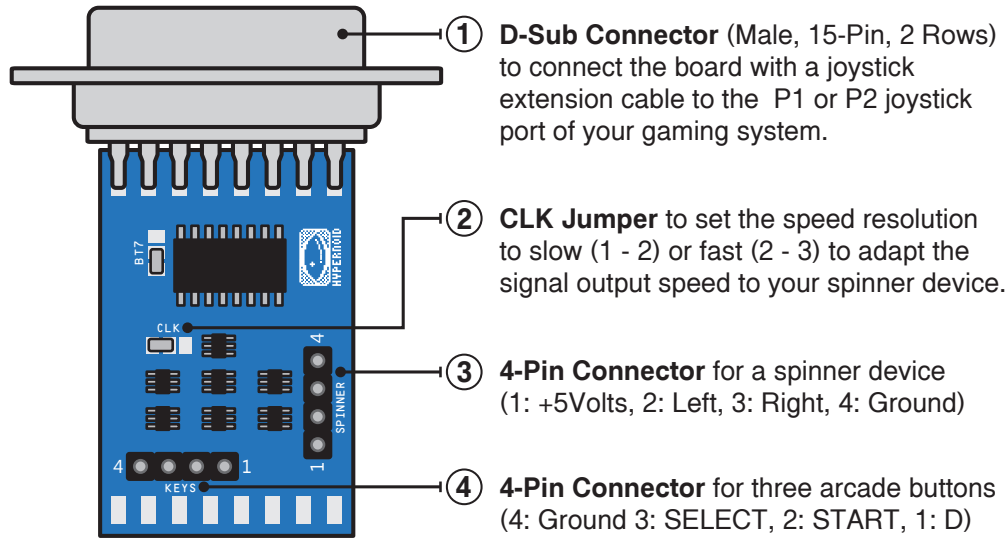


NG SPINNER BOARD USER MANUAL

The NG Spinner Board is made for playing games with rotary controls on NG MVS, AES and CD systems. To build a complete spinner controller you need to mount it inside a suitable box and attach a spinner device and three arcade buttons to the board. After that, you can connect the spinner controller with a joystick extension cable to the P1 or P2 joystick port of your gaming system.

Additional info about building a controller can be found at NeoHomeBrew.com



① **D-Sub Connector** (Male, 15-Pin, 2 Rows) to connect the board with a joystick extension cable to the P1 or P2 joystick port of your gaming system.

② **CLK Jumper** to set the speed resolution to slow (1 - 2) or fast (2 - 3) to adapt the signal output speed to your spinner device.

③ **4-Pin Connector** for a spinner device (1: +5Volts, 2: Left, 3: Right, 4: Ground)

④ **4-Pin Connector** for three arcade buttons (4: Ground 3: SELECT, 2: START, 1: D)

SUPPORTED GAMES WITH ROTARY CONTROLS

With the NG Spinner Board you can play Hypernoid (MVS, AES, CD version) and Pop'N Bounce (MVS version) with rotary controls. To activate the spinner mode you need turn on the spinner input option in the Soft Dips Menu (MVS) or in the Game Options Menu (AES, CD).

DEACTIVATION OF INGAME MENUS & HOT KEYS

Because the board uses the signals of the four directions (up, down, left, right) and the buttons A, B and C to generate a counter for rotary controls it can accidentally activate specific button combinations (for instance A+B+C).

Therefore, you should deactivate all "Ingame Menus" of UniBios systems, NeoSD and DarkSoft flash cartridges and similar hot keys which are triggered by these buttons to prevent unwanted activation. Furthermore, when using the board on a UniBios system, you should connect the spinner controller only after the UniBios splash screen has appeared when booting or resetting your game system.

COMPATIBLE ARCADE SPINNER DEVICES

The NG Spinner Board is compatible with the spinner devices SpinTrak by Ultimarc (ultimarc.com) and TurboTwist 2 by GroovyGameGear (groovygamegear.com). Additionally, vintage arcade spinners by Taito can be connected to the board.

Please note that spinner devices with USB-based connectors (which are developed for WIN or MAC computers) will not work.

Set the CLK Jumper accordingly to adapt the speed resolution to the connected spinner device. The standard setting is slow (1 - 2) which is recommended for modern arcade spinners like SpinTrak and TurboTwist 2. But when connecting an older (gear-based) spinner like the vintage arcade spinners by Taito you need to change the CLK jumper setting to fast (2 - 3) to achieve a convenient control speed.

COMPATIBLE ARCADE PUSH BUTTONS

Use three arcade-standard 30 mm push buttons which are designed for control panels of arcade machines or fight sticks. Recommended high quality arcade buttons are made for instance by the manufacturers Seimitsu or Sanwa.

FEMALE PLUG OF EXTENSION CABLES

The female plug of older joystick extension cables will fit the male 15-pin D-Sub connector of the NG Spinner Board. But the (longer) female plug of newer cables can be too deep to reach the male D-Sub connector of the NG Spinner Board.

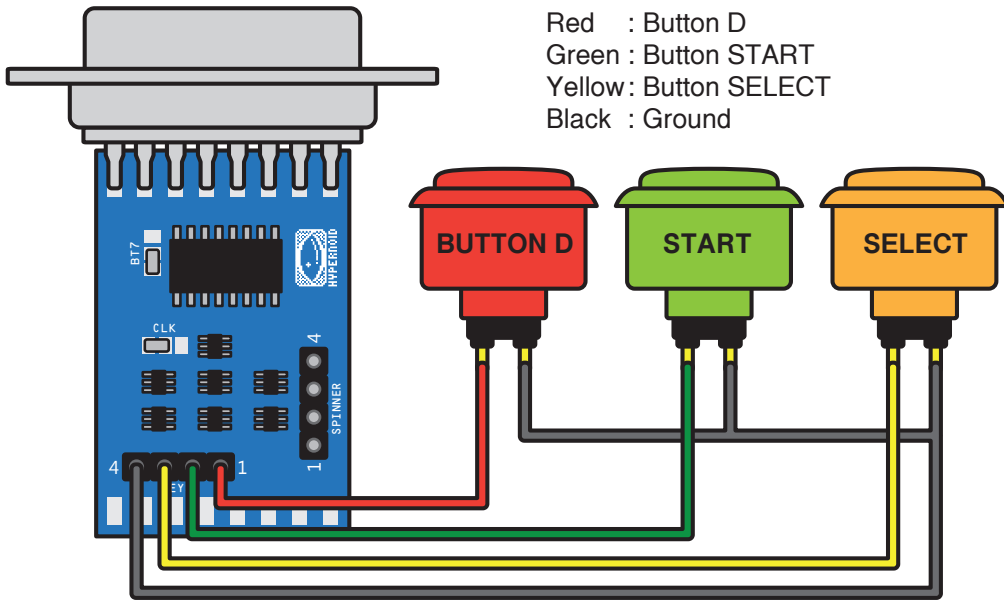
In this case you need to replace the female plug of the cable with a regular 15-pin, 2 rows, female, D-Sub connector (DB15). For instance, the D-Sub Plug Connector Series "MHDTPPK" of the manufacturer "MH Connectors" would be an appropriate female plug replacement.

TOOLS & PARTS LIST

- soldering iron kit + solder wire
- wire stripper/cutter tool
- electric drill + 28 mm hole saw bit (for drilling button holes)
- scalpel knife or similar (for cutting the D-Sub adapter hole)
- wooden box (WxLxH): SpinTrak 11x17x8 cm, Turbotwist/Taito 11x17x9 cm
- spinner device with spinner knob and (optional) fly weight
- three 30 mm arcade push buttons
- ribbon of multicolored Breadboard wires (with male and female plugs)
- NG joystick extension cable
- (optional) female D-Sub replacement plug (DB15, 15-pin, 2 rows)

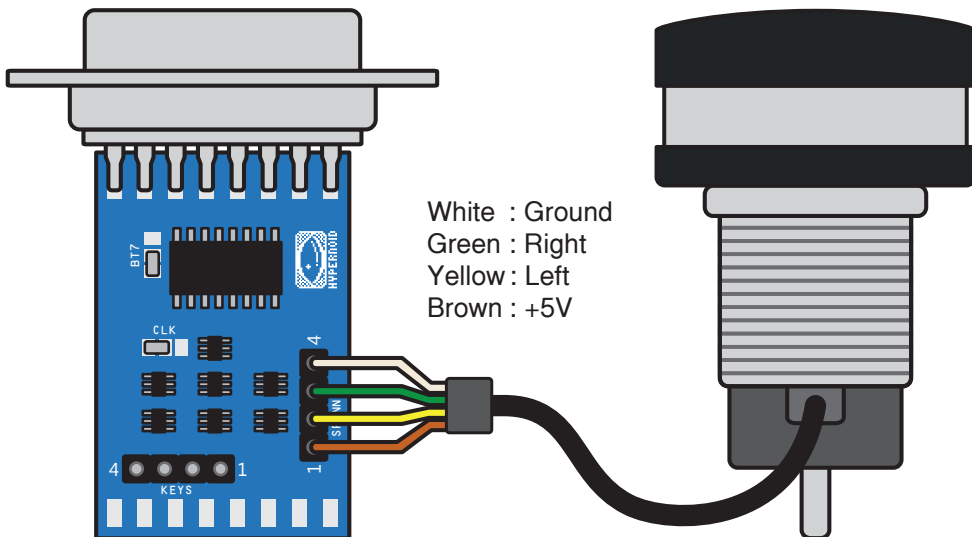
ARCADE BUTTON WIRING DIAGRAM

Connect three arcade buttons to the KEYS connector of the NG Spinner Board.



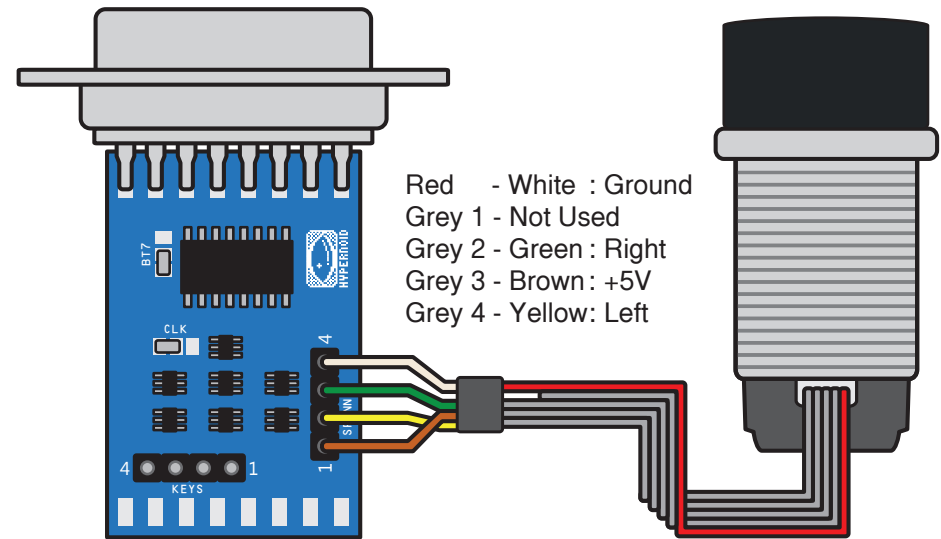
SPINTRAK SPINNER WIRING DIAGRAM

Connect the four wires of a SpinTrak spinner device (USB Interface is not needed) to the SPINNER connector of the NG Spinner Board.



TURBOTWIST 2 SPINNER WIRING DIAGRAM

Remove the original TurboTwist 2 USB interface board from the 5-wire ribbon and connect four of the five wires to the SPINNER connector of the NG Spinner Board.



TAITO SPINNER WIRING DIAGRAM

Connect the four wires of a Taito spinner device to the SPINNER connector of the NG Spinner Board. Change the CLK Jumper setting from 1-2 to 2-3.

