



Connecting a 12-Way Rotary Switch to U-HID

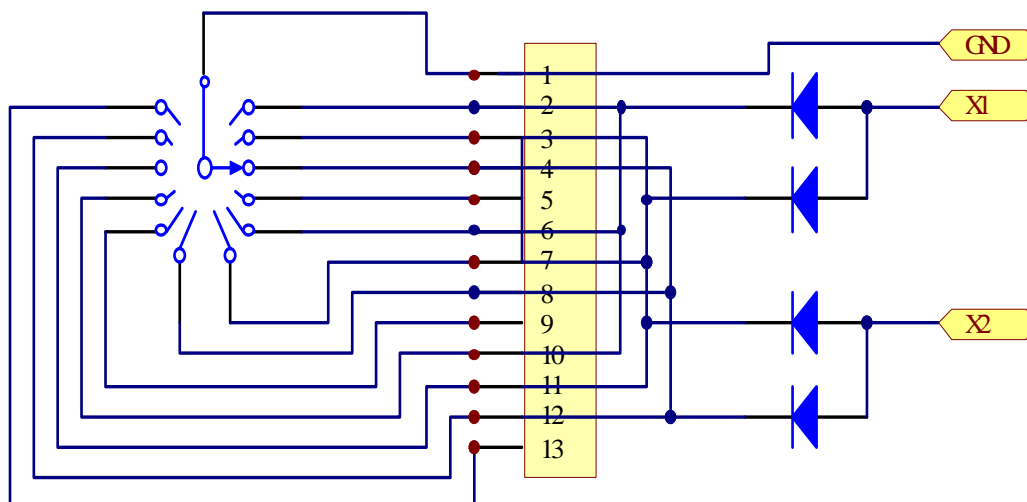
The U-HID can interface mechanical encoders and enable rotation of the encoder to activate game controller buttons. It contains advanced logic to eliminate the effects of “switch bounce” which arise when using mechanical devices.

The Happ Rotary Joystick is an example of a device which uses a 12-way switch as a mechanical rotary encoder.

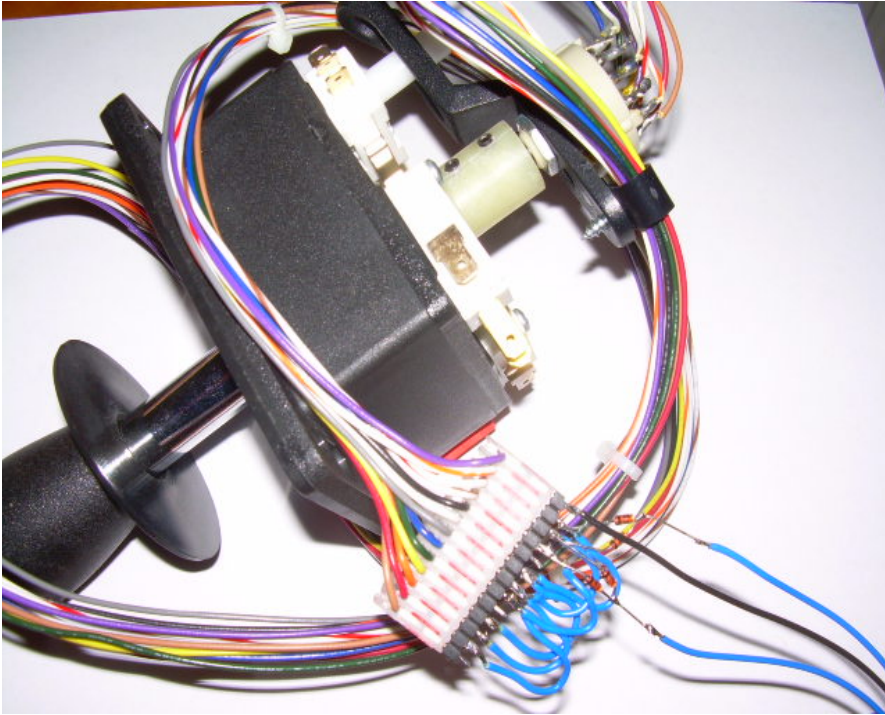
Note that if you are “rolling your own” the type of switch you need is known as a “shorting” switch, where at least one contact is always closed.

There are available specialized mechanical rotary encoders which are a more up-to-date solution than the 12-way switch.

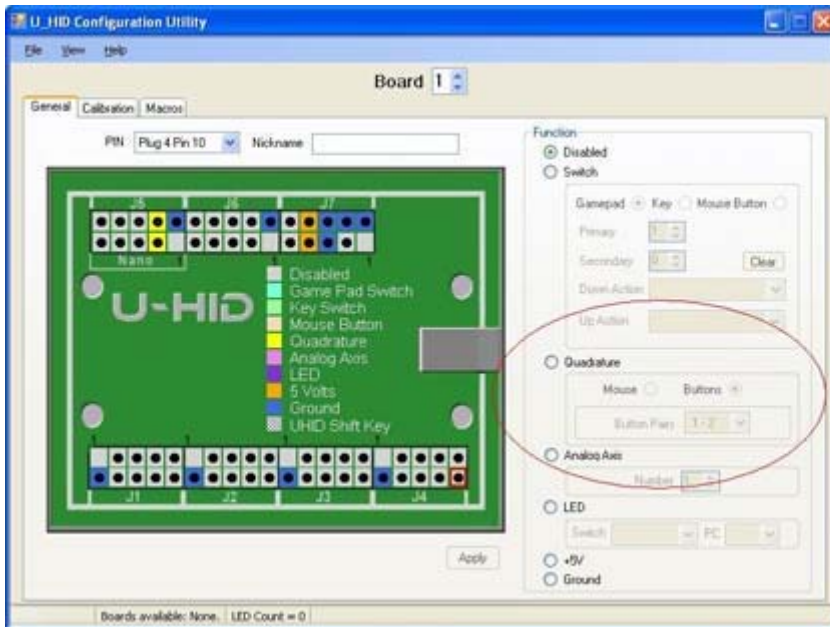
The circuit is shown below. It requires 4 small-signal diodes such as 1N4148. The three output wires connect to any GND pin on the U-HID and a pair of quadrature pins on the U-HID.



Below is a picture of an example hook-up using a 13-way 0.1 inch pin header strip plugged into the Happ connector.



You will need to configure the board using U-Config, and assign a pair of gamepad buttons to the appropriate pair of pins you are using for the device.



The button timing can be set on the Calibration window which is accessed by clicking on the Calibration tab at the top of the main window.

