

DELPTRONICS WiiChuck Module User Manual

Operation

Plug a Nintendo Wii nunchuck controller into the Delptronics WiiChuck module. When the nunchuck is recognized, the LED on the module will be illuminated. You can plug and unplug a nunchuck any time.

Outputs

The Joy X and Joy Y jacks output control voltages corresponding to the position of the nunchuck joystick. The Tilt X and Tilt Y jacks output control voltages corresponding to the position of the nunchuck itself in space. Tilt to the left and right to change the Tilt X CV. Tilt up and down to change the Tilt Y CV. The Btn C and Btn Z jacks output 10V when the corresponding buttons on the nunchuck are pressed, and zero volts when not pressed.

Inputs

The Tilt X Hold and Tilt Y Hold jacks are inputs. When the Hold inputs get a positive voltage, the corresponding Tilt CV output will change in real time as you tilt the nunchuck. When the Hold inputs get zero volts, then the CV outputs stay the same regardless of the movement of the nunchuck.

The Tilt X Hold jack is normalized to a positive voltage, so when nothing is plugged in, the Tilt X output will change in real time as you tilt the nunchuck. The Tilt Y Hold jack is normalized the Tilt X Hold jack. So, if you patch a signal into the Tilt X Hold jack, it also controls the Tilt Y Hold, unless you also patch the Tilt Y Hold jack.

Pro tip: It is very handy to patch the Btn C output into the Tilt X Hold jack. Then, you can control when the tilt CVs change with the C button.

Configuration

Each of the four analog outputs (joystick X & Y and tilt X & Y) can be set to go from either 0-5 volts, or 0-10 volts. Configuration mode is where you select the voltage ranges.

To enter configuration mode, press the blue button. The LED will blink slowly.

When in configuration mode, move the joystick to the far left to set the joystick X maximum output voltage to 5V, or to the far right to set the maximum output voltage to 10V. The LED will blink fast to indicate that it has recognized your choice. Likewise, move the joystick to the bottom or top to set the joystick Y maximum output voltage to 5V or 10V respectively.

Tilt the nunchuck to the left to set the tilt X maximum output voltage to 5V, or tilt it to the right for 10V. Tilt the nunchuck down or up to set the tilt Y maximum output voltage to 5V or 10V respectively. Like when setting the joystick voltage ranges, the LED will blink fast to indicate that it has recognized your choice.



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To exit configuration mode, either press the blue button again, or press the nunchuck Z button. When you exit configuration mode, the settings are saved and will be remembered the next time you power on the module. To cancel any changes made while in configuration mode, press the nunchuck C button.

Joystick Calibration

The joysticks have different ranges in different brands of nunchucks. In some third party nunchucks the joystick values cover the full range from 0 to 255. In others, including official Nintendo nunchucks, the range is more like 20 to 235. The WiiChuck module scales the available range so that, regardless of the numbers reported by the nunchuck, the output goes from zero volts to the maximum voltage.

When you plug a nunchuck into the module, or when you first power on your rack with a nunchuck already attached, you will have to re-calibrate the joystick. All that is required is that you move the joystick to its X and Y limits. Also, the module makes note of the center position at the time the nunchuck is plugged in, so do not move the joystick while plugging it in.