

## MiniGun Version 2.5 Information

The MiniGun is a Supergun board that interfaces with JAMMA compatible arcade boards, provides them with power, and gives common audio, video, and controller inputs. This is an open source project that has no warranty and provides support on the arcade-project.com forums

<https://www.arcade-projects.com/forums/index.php?thread/9408-minigun-supergun-an-open-source-supergun/>

## Warnings

This board is provided AS IS with no warranty expressed or implied. You should look over the board and do adequate testing before connecting it to any arcade boards. I will take no responsibility for anything damaged by this board. Community support is given on the arcade-projects.com forum and you are encouraged to search for answers there.

There are many things that can go wrong. While these boards have been tested, it is not possible to test for everything that could go wrong or all use cases. Improper connection to a power sources is one example of something that could cause serious damage to everything the MiniGun is connected to and the MiniGun itself.

I test every board on my own arcade boards. You should still do a visual inspection of the MiniGun to ensure nothing was damaged. Once again, please don't plug this into your arcade board and get upset with me that your board is no longer working. If you truly feel the MiniGun I provided has a defect, I would be happy to replace it after troubleshooting has been done.

## Neo-Geo DB15 Connectors

The MiniGun uses the Neo Geo DB15 connectors for its controllers. More information can be found in forums online.

## MiniDin 8 Video and Audio

This MiniGun uses an 8 pin Mini Din connector that carries RGB video and audio. It is compatible with things like the OSSC and GBS8200 boards. As with any arcade video, it can be tricky and you may need to seek help in online forums. If something is plugged into the 3.5mm audio jack, sound will not come out of the minidin8 connector.

## Buttons 4, 5, and 6

For both player 1 and player 2, button 4 and 5 can be mapped to either the JAMMA connector or the white 6 pin JST connector. Button 6 must be connected to the white JST connector. On the DIP switch, moving the switch toward the JAMMA connector is ON and will map that button to the JAMMA connector. The JST connector is always active on all buttons regardless of the DIP switch settings.

Button	DIP Switch Number	JST Pin	JAMMA Pin
Player 1 Button 4	2	1	25
Player 1 Button 5	1	3	26
Player 1 Button 6	N/A	5	N/A
Player 2 Button 4	4	2	AC
Player 2 Button 5	3	4	AD
Player 2 Button 6	N/A	6	N/A



## Audio Selection

Audio can be either passed through the mini-din 8 video connector or the 3.5mm stereo jack. When a device is plugged into the 3.5mm jack, the audio to the mini-din 8 connector will be disabled.

The audio can be set to mono or MVS stereo. Most arcade boards only support mono. Not all MVS boards support stereo so make sure you understand your board before you change this setting. If your MVS board supports stereo you can change the jumper to MVS and the Minigun will connect the additional JAMMA pin for stereo audio to the mini din or 3.5mm jack.



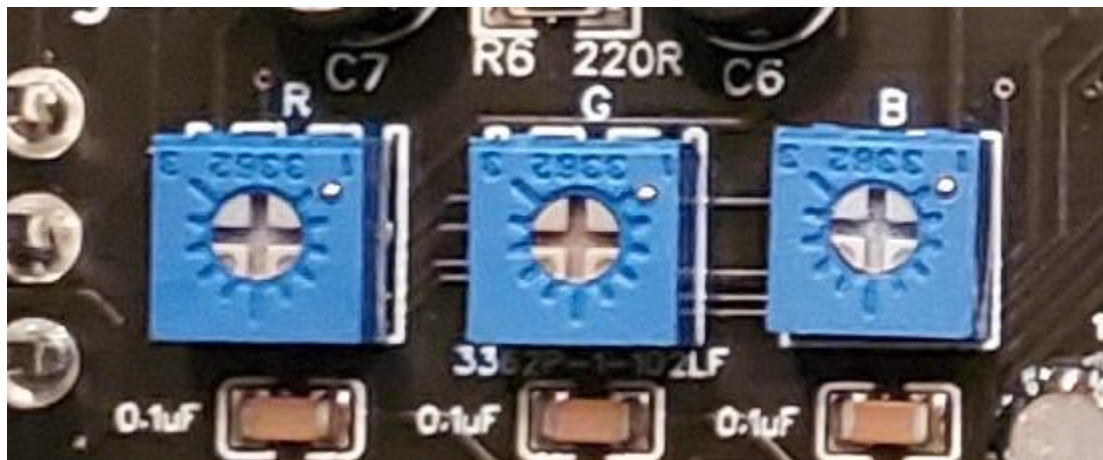
## Low Pass Filter (LPF)

The Minigun uses a THS7374 chip that contains a Low Pass Filter. You should do the research to determine if you want this on or off, however keeping it off to start with is a good option.



## RGB Color Adjustment

The Minigun has 1K potentiometers on each of the Red, Green, and Blue colors to allow for adjustment. There are many places to adjust color starting with the arcade board itself. The monitor being used may have color adjustment, and finally the Minigun has adjustable color.

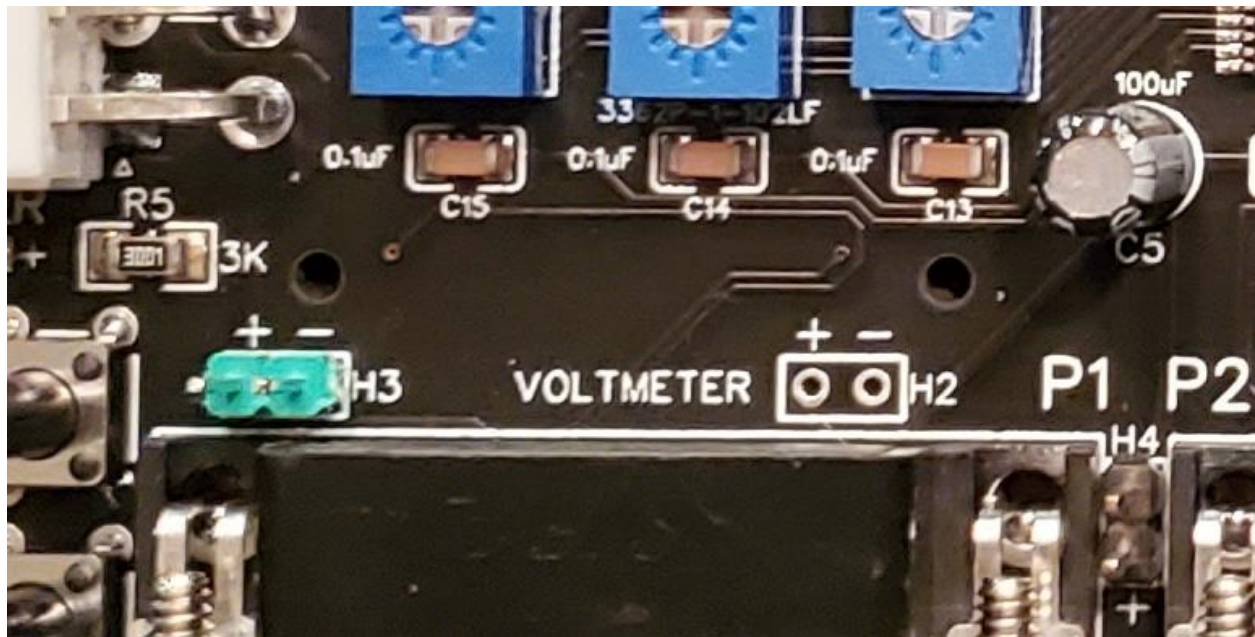


## Voltmeter

A voltmeter to show the +5v status can be added to the Minigun. The board was designed for a mounted 0.28mm voltmeter. These voltmeters often are advertised as 0-30v Voltmeters with 2 wires (not 3). They will often have an adjustment potentiometer on the back to calibrate the voltage. This means that if you have not calibrated it (I don't calibrate the ones I send out) it may not be perfect. For example it may read 5.05v and really it is 5.2v.

The mounting is done with M2 size standoffs and screws just above the H2 and H3 connections. The best heights for the standoffs are around 5mm (best without a case) to 8mm (good for cases). The

voltmeter can be plugged into H2 as seen in the picture, however H3 and H4 are wired the same and might be good alternatives.



## Power Connector

The power cable provided has the correct end to connect to the MiniGun (molex 6 pin). The bare end of the wires need to be stripped and connected to a power supply. I recommend the Happ power supplies, but this is up to you. You may not need the -5v. The MiniGun only requires the +5v to be connected to operate, and the other voltages just pass to the JAMMA connector. The cable has two black and red wires, this is to provide extra amps over more wires. You don't have to hook them up, but it is recommended.

Provided cable color code:

Color	Voltage
Black	Ground
Red	+5v
Yellow	+12v
Blue	-5v