



MiniCaster-- Mini Clone Hero/MIDI Controller



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[VIEW IN BROWSER](#)

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Summary

Travel controller for Clone Hero/MIDI Synth Controller

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After building [/u/GermanDarkness](#)'s Remix of [/u/isrussell](#)'s model I had a ton of new ideas to implement! I rebuilt pretty much everything but still used his strum bar and face buttons in this iteration.

The end product is primarily made for Clone Hero, but can also be used as an expressive MIDI Controller.

[/u/GermanDarkness](#) mentioned he put about 100 hours into his. I believe I'm getting pretty close to that amount of time just on my design. I have a lot of respect for all the work he and [/u/isrussell](#) have put into the reference projects.

I hope people are as satisfied with the results as I have been so far. :)

Design changes/Significant modifications:

- Based on the Fender offset Telecaster
 - split body vs “box” style
 - curved edges for improved comfort
- Thicker neck for [my] comfort
- Lefty version available for download
- Optional Cosmetic button plate
- Xplorer-style fret buttons
 - Round or flat depending on player preference
- Relocated Strummer switches to a more effective position for faster playing
- Face button relocation for aesthetics
- Added mounting point for tilt sensor on the select switch mount (keeps it at 45 degrees)

Intended to be used with Arduino Pro Micro (5v) microcontroller and standard MX Cherry switches (I prefer browns for the buttons, but blues make you sound cool :P).

Parts List (you can also use MX Cherry switches)

I cannibalized an old CAT5 cable for most of the wires

- x7 Kaihl Brown Box Switches
- x2 Kaihl Blue/Navy Box Switches
- x1 Steel ball tilt sensor
- x1 2 or 3 post switch (to toggle the tilt sensor) ([Link for the one I used](#))

Build is pretty straightforward. Wire a common ground to all pins and solder it into one of the GND mounting holes on the Arduino Pro Micro. Then run a positive wire from each individual input switch and solder it into any of the numbered holes on the Pro Micro.

THIS MODEL DOES DOES NOT USE THE THREADED INSERTS. It is designed to be held together with m3 bolts threaded into the plastic.

The mini switch on the faceplate is used to toggle the tilt sensor since I wire it in parallel to the select switch. I just interrupt the positive lead going to the sensor and put the toggle switch there.

Please let me know if you have any questions.

I use Sanjay900's guitar configurator application to configure the controller to be used on a computer.

Controller Configuration:

<https://sanjay900.github.io/guitar-configurator/>

Thanks for checking out my project :)

Let me know what you all think!

This remix is based on



Mini Guitar Hero / Rock Band / Clone Hero Controller

by GermanDarknes

Model files



minicaster-body-top.stl



minicaster-body-bottom.stl



minicaster-lefty-top.stl



minicaster-lefty-bottom.stl



panel.stl

☐ cosmetic button plate

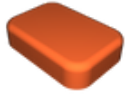


minicaster-neck-top.stl

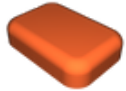
☐ designed to fit both full sized and med-low profile switches



minicaster-neck-bottom.stl

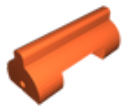


fret-button-flat.stl



fret-button-round.stl

☐ more rounded edges for easier glide



strummer.stl

☐ Model Made by /u/GermanDarkness



body-button.stl

☐ Model Made by /u/GermanDarkness

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