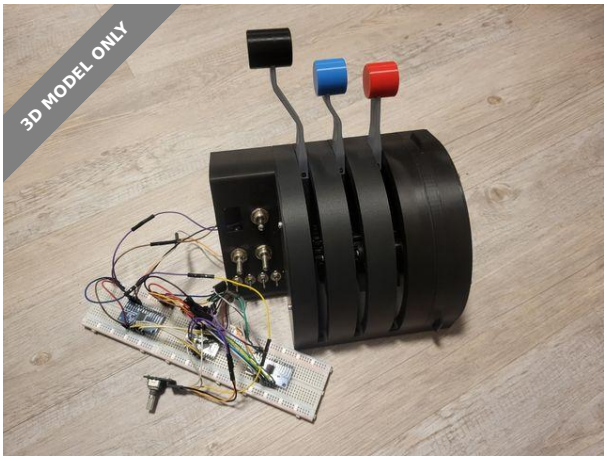

Flight Simulator Throttle Quadrant -- Read Description please --

m max2807

VIEW IN BROWSER

updated 23. 9. 2022 | published 23. 9. 2022

Summary

6-axis modular throttle quadrant for flight simulation - Prototype -

Gadgets > Computers

Tags: arduino aviation boeing computer controller flight leonardo micro pc pro simulator throttle quadrant airbus

!! Do not print this (yet) !!

Small Update 20.09.2022:

Pictures of the MVP are now up, and I still have some software bugs, but everything mostly works. The parts uploaded can build a throttle, but I'm still far from the finished product.

I also have a (possibly) elegant solution for notched flaps, speedbrakes etc., but I'm currently waiting for a shipment of magnets that I need to test my idea :)

Update 04.09.2022:

This is still **not a finished project**, but it is nearing beta stage so to speak, I am currently working on printing and building a minimum viable product (MVP) and will add photos of it soon :)

I've finally managed to spend some more time refining the idea. I have revised the assembly method to use threaded inserts and added some components. I have also uploaded a .zip file of all CAD files, just keep in mind that I used Siemens NX to design it, so you might not be able to open them correctly.

A lot of features are still missing, and I am trying to work out a solution

Things that do not work yet:

- PCB manufacturing
- Mounts for electronics inside the enclosure
- Desk mount for quadrant
- Notched Flaps/Speedbreaks/Throttles

Things that are partly solved:

- Trim wheel (rectangular cutout in button panel)
- Modular lever system

Original Text:

This is a prototype for a modular 6-axis throttle quadrant for flight simulators. It is still in early phases of design.

Possible Configurations (inspired by Honeycomb Bravo Throttle Quadrant):

- General Aviation single engine (Throttle, Prop (optional), Mixture)
- GA twin engine (Throttle x2, Prop x2, Mixture x2)
- Commercial Aviation (Speedbrakes, Engines 1-4, Flaps)
- And many more...

Things that are already done:

- Arduino Pro Micro + code
- Geared Potentiometers
- Adjustable resistance of levers
- General structure
- PCB layout

Things that do not work yet:

- PCB manufacturing
- Mounts for electronics inside the enclosure
- Desk mount for quadrant

- Trim wheel (rectangular cutout in button panel)
- Modular lever system

If you have any questions or suggestions, I'd appreciate if you left a comment :D
I'll try to leave updates on my progress

Model files

v2 16 files

mix_lever.stl

sleeve.stl

gear1.stl

gear2.stl

throttle_knob.stl

panel_right.stl

prop_lever.stl

base_lever.stl

slot_cover.stl

throttle_lever.stl

mix-prop_knob.stl

divider_left.stl

divider_right.stl

panel_left.stl

divider2.stl

divider1.stl

v1 6 files

base_lever.stl

gear1.stl

gear2.stl

panel.stl

slot_cover.stl

divider.stl

Other files

3d_parts.zip

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