Computer Switch Board

Steak Electronics

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Contents

1 Requirements

- large pcb board

- fused power input - EDIT: instead I will have a case around the nano, 3d printed, and have the case connect into the pcb, i.e. cutouts for the case in the pcb, and clips on case. the rest of the pcb will be fused somewhere, after the nano. but nano powers it.

- arduino nano

- switch to activate things

- rotary to change number

- 7 digit display to list number, and shift register, resistors

- explanation of what numbers do on board

- 3d printed cover over nano

2   build notes

The 7 segment symbols are abstracted in kicad. Job security for engineers.

The example gave a common Vcc, with all pins being connected to GND, and sinked when on.

The data sheet of the 7seg, omits the schematic. but does show that it is common anode, or common vcc. Pin 3 is left out, but that is VCC.

It's easier to use a 10 pin connector, then to decipher the abstracted symbols.

3   button choice - Arcade style button

Digikey has an arcade style button section. There is a 24mm and 30mm panel cutout. That appears to be the standard. I'll start with 30mm.

3.1   arcade pinout

A note on the button, the led positive is denoted by a red mark of paint on the pin. The switch is the middle, with a grey box holding it. Somewhat confusing. You can test the switch with a DMM.

4   Minimal_Read3.py

4.1   Troubleshooting

4.1.1   /usr/bin/env: ?python?: No such file or directory

I received this error on a fresh install of GNU Linux. I found out that my distribution had only python3 by default, not python2. So apt-get install python There was also talk about line endings and carraige returns causing this error, but not in my case.

4.1.2   ImportError: No module named serial

Then after installing python, I needed, sudo apt-get install python-serial Another approach (much more stuff) sudo pip install pyserial I did the former. Oddly enough, my other install didn't need this. I wonder what installed python serial last time...