|  |
| --- |
| ***Stand Alone Main Control Case with Modular Mounts for Various Mainboards, Display's, RPi's, Fans amd MORE!!!*** |
|  |
| ***April 5, 2020 SB*** |

**GUIDE**

|  |  |  |  |
| --- | --- | --- | --- |
| **Decide the Size of case you need.** | | | |
| **Compact** | **Standard** | **Compact Pro** | **Pro** |
| If you just want a small no frills case, minimal | If you want a good sized case with room for all the things you want to put inside the case. | | If you want a case for the bigger mainboards like the SKR V1.1 |
| *Single Piece, need to be able to print a Case 205mm x 185mm* | *Single Piece, need to be able to print a Case 300mm x 185mm* | *Single Piece, need to be able to print a Case 300mm x 185mm* | *Only one option here, a single print. You will need to be able to print a Case 340mm x 185mm* |
|  |  |  |  |
|  | *2 Piece,* ***Standard ONLY****, if you need to be able to print on a smaller printer like a Ender 3* |  |  |
|  |  |  |  |
| **CASE COMPATABILITY CHART** | | | |
| **Compact Case:** | **Standard Case**  **Standard Case 2 Piece**  **Pro Compact with RPi**  **Pro Compact wo RPi** | **Pro Case v3.0:** | **Universal Parts:** |
| **Base Stand – Compact**  **Lid – Compact**  **Power Panel Compact –**  **All (There is only 1)** | **Base Stand – Standard**  **Base Stand – Standard Slim 2 piece**  **Base Stand – Standard Tall 2 piece**  **Lid - Standard** | **Base Stand – Pro**  **Lid – Pro**  **Mainboard Mount – SKR Pro** | **Mainboard Mounts – ALL Except Pro**  **Fan Mounts – ALL**  **Display Mounts – ALL**  **CPU Mounts ALL**  **Nameplates – ALL**  **Front Vents Covers**  **Power Panel – All except Compacts with RPi** |
|  |  |  |  |

|  |  |
| --- | --- |
| **Select the Base Component that meets your needs.** | |
| **Slim** | **Tall** |
| If you have a thinner PSU that is about 30mm thick. (Meanwell) | If you have the PSU that is about 50mm thick. (Cheng Liang) |
| Don’t forget the terminal cover. Once the wiring is done then attach  the terminal cover over the end of the PSU with the wires. | |

**Select your Mainboard Mount**

Pick the Mainboard Mount for the board you are going to install. I.e. SKR v1.3, Creality board, etc.

**Select your Display Mount**

Pick the Display Mount for the display you are going to install. I.e. TFT 3.5 V3, LCD12864, etc.

LCD Displays Currently Supported:

* LCD12864 the Original Creality Display
* TFT35 Touchscreen: BTT TFT35 V3.0 Touch Screen Display
* TFT35 Touchscreen: BTT TFT35 E3 V3.0 Touch Screen Display
* TFT35 Touchscreen: BTT TFT35 V2.0 Touch Screen Display
* More to come

**Select your CPU Mount**

Pick the CPU Mount for the RPi you are going to install. I.e. Pi 3 or 4

**Select the appropriate lid for the case, Compact, Standard, or Pro.**

There is a Compact, Standard, and a Pro version of the lid.

**Internal Fan**

There are several double 4020 fan mounts to choose from.

Not everyone uses the internal fans, some use a lid mounted fan. Your choice.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Rear Fan** | | | | | |
| **Internal Fan Mounting** | | | **External Fan Mounting (works the best)** | | |
| 100mm fan mounts directly to the back of the case | Conflicts with case | 80mm fan needs the 80mm fan adapter | 100mm fan mounts directly to the case; there is a cover for it if you want more of a finished look. | 80,90 or 92mm fan mounts to the case 80, 90 or 92mm case adapter; there is a cover for it as well. | |
| Nothing to print, this does restrict the wire port |  |  |  |  |  |
| **Lid Mounted Fans** | | | | | |
|  |  |  |  |  |  |

|  |  |
| --- | --- |
| Where does the PSU mount? | |
| The PSU mounts underneath the case. | Connect with M3 x 6mm button head screws, NO longer than 6 mm. You could cause damage/ |
|  |  |

**Fan Hats**

This gives you the option to mount components like Buck Converters and MOSFET’s on top of the 4020 fans. Since there are way too many possible combo I have elected to post thee necessary files for you to create the combo you need.

**Rear Power Panel**

Standard, fits all cases except the Compact

Compact, fits only the Compact Cases

**Side Opening**

The side opening is a vent port, takes a 60mm dust cover or equivalent.

***Finally!***

**Print your files, assemble, and wire it anyway you see fit.**

**Accessories:**

**Raspberry Pi 7 inch Touch Screen (Official)**

1. Install the screw on the inside of the base mount to the lid (3- M4 screws)
2. Set the screen in the screen mount an use 4- M3x12 socket head screws to attach the screen and the mount at the same time. 2 from under the lid thru the opening and 2 from the top behind the base mount. Be careful not to over tighten these screws.
3. Do the wiring.
4. Attach lid to case.

**Solid State Relay Floor Mounts**

**!!!! Caution!!! When SSR’s fail, they usually fail closed. This means that if it fails, the bed will heat to its max temperature and the printer controls will not be able to control it. This could easily start a fire. Always use a Secondary Method of Thermal Runaway Protection!!! One that monitors the bed temperature and sits idle until the temperature goes above a setpoint, i.e. 120 degrees C. Then will kick in and prevent it from getting any higher.**

|  |  |
| --- | --- |
| **Parts:** | |
| **Screws;**  **Miscellaneous M3 and M4 Bolts**  **Miscellaneous M3 and M4 Nuts**  **8x3/4 or 10x3/4 sheet metal screws (to attach the base)** | https://images-na.ssl-images-amazon.com/images/I/71kQULghmnL._AC_SL1500_.jpg |
| **M3x15 brass standoff - to mount the fan board on the RPi** | https://images-na.ssl-images-amazon.com/images/I/71eeSlXmdkL._AC_SL1500_.jpg |
| **Small Round Rubber Feet W/Screws - .250 H X .671 D** | https://images-na.ssl-images-amazon.com/images/I/61cyrqgNSbL._AC_SL1500_.jpg |
| **(If you are using this on a 24VDC system, then get the appropriate 24v parts, 12VDC then those appropriate parts.)** | https://images-na.ssl-images-amazon.com/images/I/61B4DAa0DBL._AC_SL1000_.jpg |
| **Buck Converters: HOMREE DC-DC Converter Step Down Module 12/24V to 5V Micro USB Output Buck Power Adapter (Micro USB) - power for RPi 2/3** | https://images-na.ssl-images-amazon.com/images/I/51IDt3vfrXL._AC_SL1000_.jpg |
| **Dust Covers: BQLZR 60mm Black Plastic Dustproof Case Fan Dust Filter Guard Grill Protector Cover PC Computer Pack of 5** | https://images-na.ssl-images-amazon.com/images/I/61KQcv6q%2BLL._SL1100_.jpg |