

## **Callisto II Official Owner's manual**

# Warning!

Please be very careful when handling the printed pieces as some of them have sharp edges!

# Welcome!

Hello and thanks for purchasing the Callisto II personal computer terminal! Before operating the computer, please read this manual thoroughly and retain it for future reference.

# Materials!

- 1.5x rolls of 1kg filament. We used this brand:[https://www.amazon.com/dp/B00ME7A1II/ref=cm\\_sw\\_r\\_tw\\_dp\\_VV9CJ35V7D81CJPHJMJT](https://www.amazon.com/dp/B00ME7A1II/ref=cm_sw_r_tw_dp_VV9CJ35V7D81CJPHJMJT)
- Monitor: Pimoroni HDMI 8" IPS LCD Screen Kit - 1024x768: <https://www.adafruit.com/product/4338>
- PSU: IKITS 22W 4 Port Phone Charging Station: [https://www.amazon.com/dp/B018Q36HGI/ref=cm\\_sw\\_r\\_tw\\_dp\\_104N03TPNB6QX0D80BA](https://www.amazon.com/dp/B018Q36HGI/ref=cm_sw_r_tw_dp_104N03TPNB6QX0D80BA)
- USB: Sabrent 4-Port USB 3.0 Hub: [https://www.amazon.com/dp/B00JX1ZS5O/ref=cm\\_sw\\_r\\_tw\\_dp\\_GQVKWHA2APE53HMOV1J06?\\_encoding=UTF8&psc=1](https://www.amazon.com/dp/B00JX1ZS5O/ref=cm_sw_r_tw_dp_GQVKWHA2APE53HMOV1J06?_encoding=UTF8&psc=1)
- Keyboard: You get 2 different options:
  - Keyboard Number 1: [https://www.amazon.com/dp/B07FZSTLBQ/ref=cm\\_sw\\_r\\_tw\\_dp\\_CC6NTJYRJ1N4T2MZ7SSW?\\_encoding=UTF8&psc=1](https://www.amazon.com/dp/B07FZSTLBQ/ref=cm_sw_r_tw_dp_CC6NTJYRJ1N4T2MZ7SSW?_encoding=UTF8&psc=1)
  - **OR** Keyboard Number 2: [https://www.amazon.com/dp/B08H4RHBL1/ref=cm\\_sw\\_r\\_tw\\_dp\\_49042BQ8A23CJ5SMR0CW?\\_encoding=UTF8&psc=1](https://www.amazon.com/dp/B08H4RHBL1/ref=cm_sw_r_tw_dp_49042BQ8A23CJ5SMR0CW?_encoding=UTF8&psc=1)
- Computer: your choice, we used a 'Raspberry Pi 4' with ours!

Optional items:

- Keycaps:
  - [https://www.amazon.com/dp/B08QJG97HC/ref=cm\\_sw\\_r\\_tw\\_dp\\_18WYTE67CFM7HF77H6X8?\\_encoding=UTF8&psc=1](https://www.amazon.com/dp/B08QJG97HC/ref=cm_sw_r_tw_dp_18WYTE67CFM7HF77H6X8?_encoding=UTF8&psc=1)
  - [https://www.amazon.com/gp/product/B079GZQFY6/ref=ppx\\_yo\\_dt\\_b\\_asin\\_title\\_o01\\_s00?ie=UTF8&psc=1](https://www.amazon.com/gp/product/B079GZQFY6/ref=ppx_yo_dt_b_asin_title_o01_s00?ie=UTF8&psc=1)

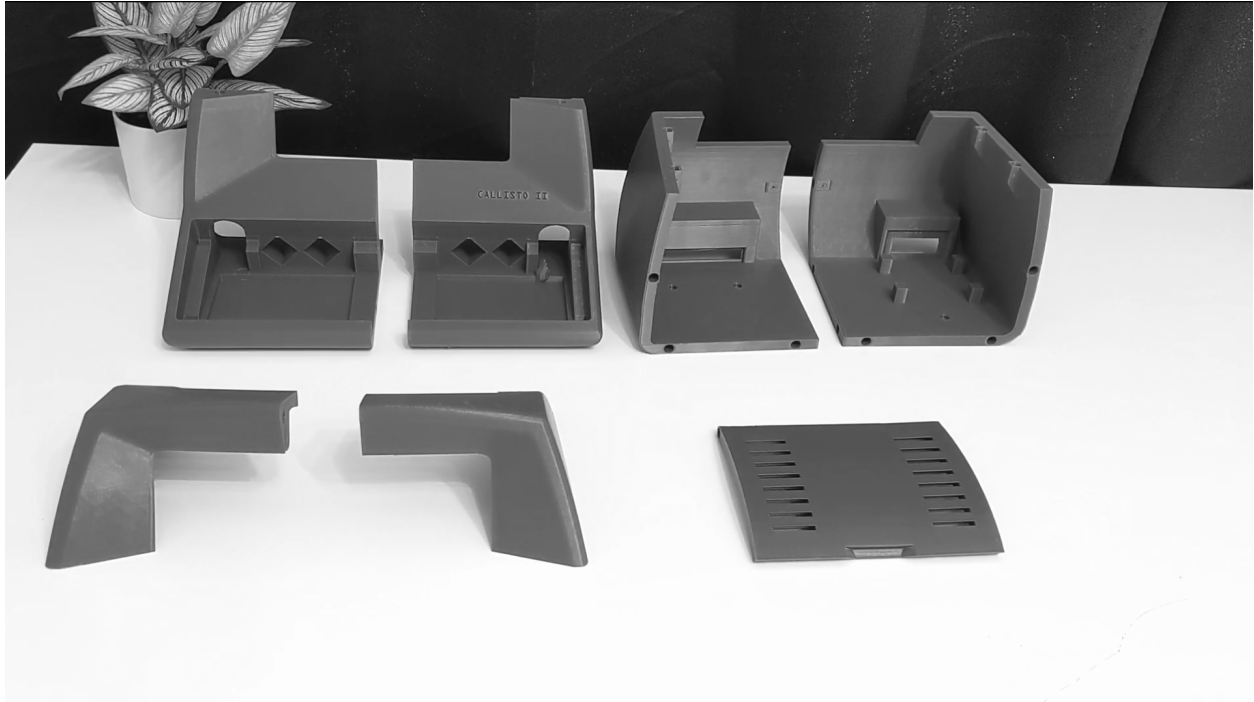
## 3D Printing!

- All pieces were designed to fit on a maximum print volume of 18x18x18 cm
- We sliced all pieces using Cura and used **TREE SUPPORTS**. Note: please do not use regular supports as they will be extremely difficult to remove after printing!
- The following pieces will need to be printed with tree supports:
  - Both back pieces (Tree support branch angle of 60. Support overhang angle of 89)
  - Both top pieces (Tree support branch angle of 60. Support overhang angle of 50)
  - Both Front pieces (Tree support branch angle of 40. Support overhang angle of 50)
- **NOTE:** If you are using keyboard option 2, please use the following alternate front piece files:
  - A\_front\_left\_diff\_keyboard
  - B\_front\_right\_diff\_keyboard
- Use needle nose pliers to clean up all of the pinholes and remove all tree supports. (**WARNING, EDGES MIGHT BE SHARP**)
- Print 25x pins (use a raft if you are going to put more than one on the buildplate!!!)
- Print 5x “screenholder” pieces. These will be used to hold the electronics in place
- We used an infill of 10% and resolution of 0.2.

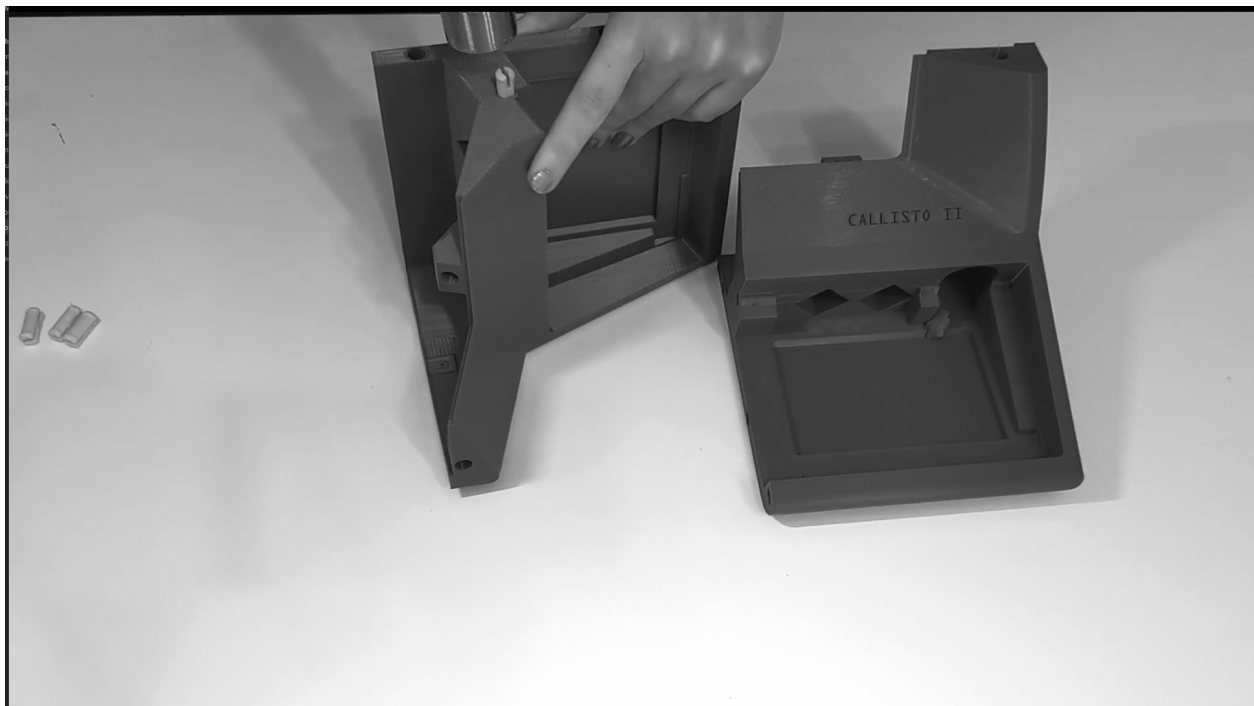
# Assembly!

- Please follow the step by step pictures on how to assemble the parts:
- **WARNING!** Parts may be sharp! Handle with care.

Step 1: Gather all 7 parts, 25 pins and 5 screenholder pins:



Step 2: Hammer pins into one side of the front parts

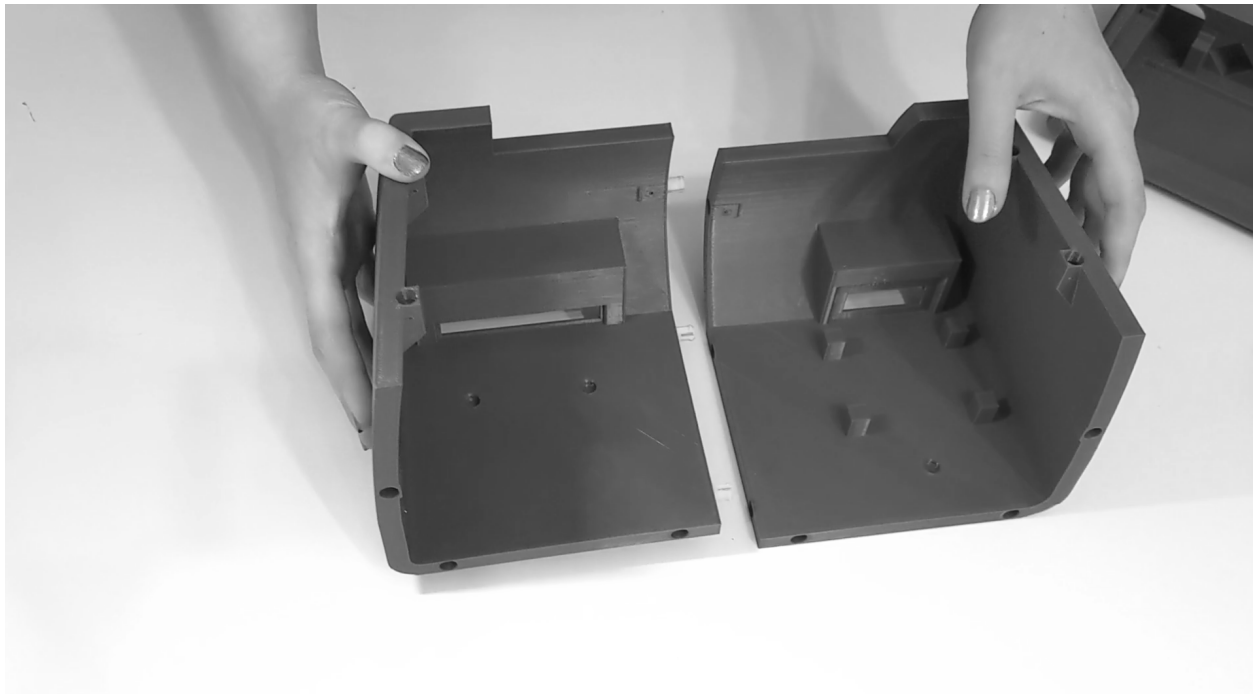




Step 3: Connect the 2 front pieces together:



Step 4: Connect the 2 back pieces together:



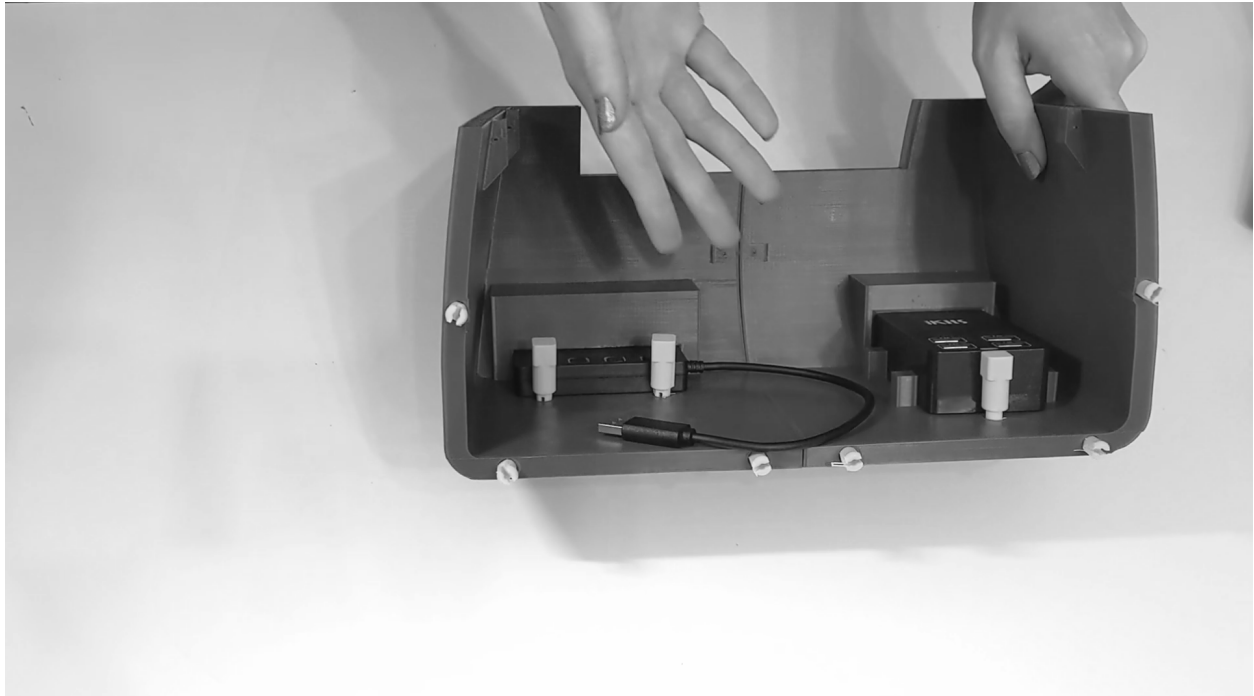
Step 5: Gather the electronics:



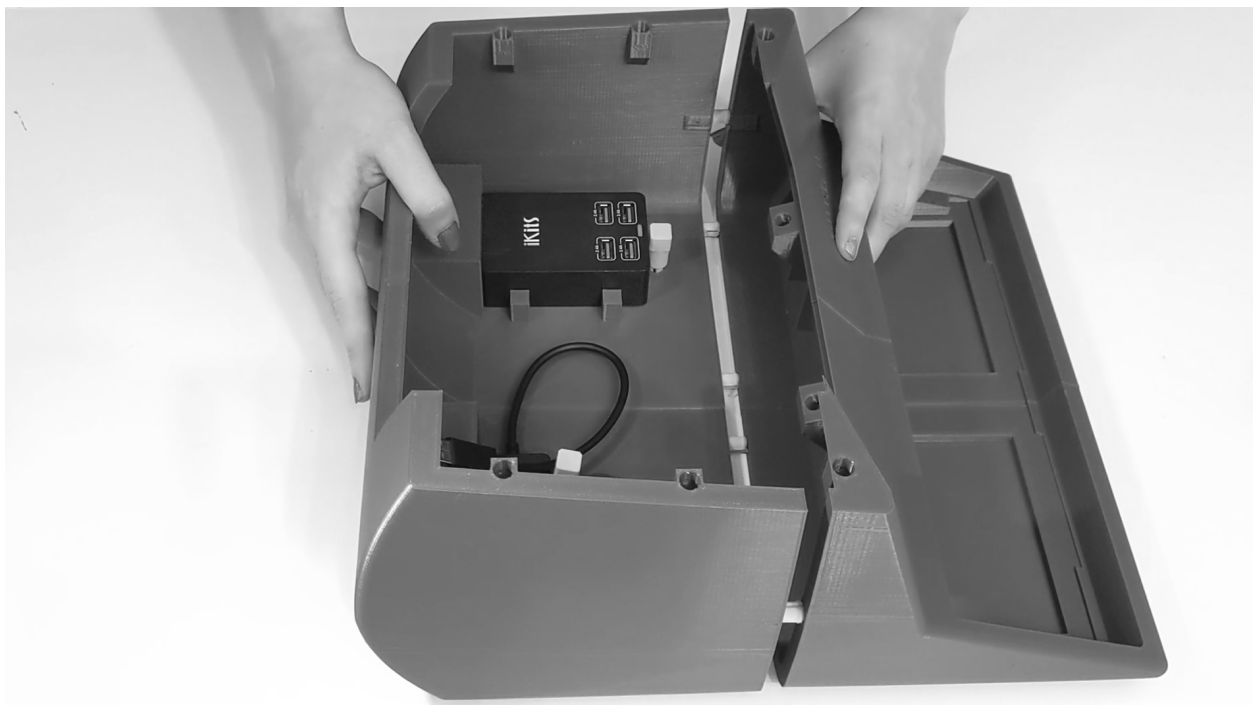
Step 6: Place the PSU and USB into their slots:



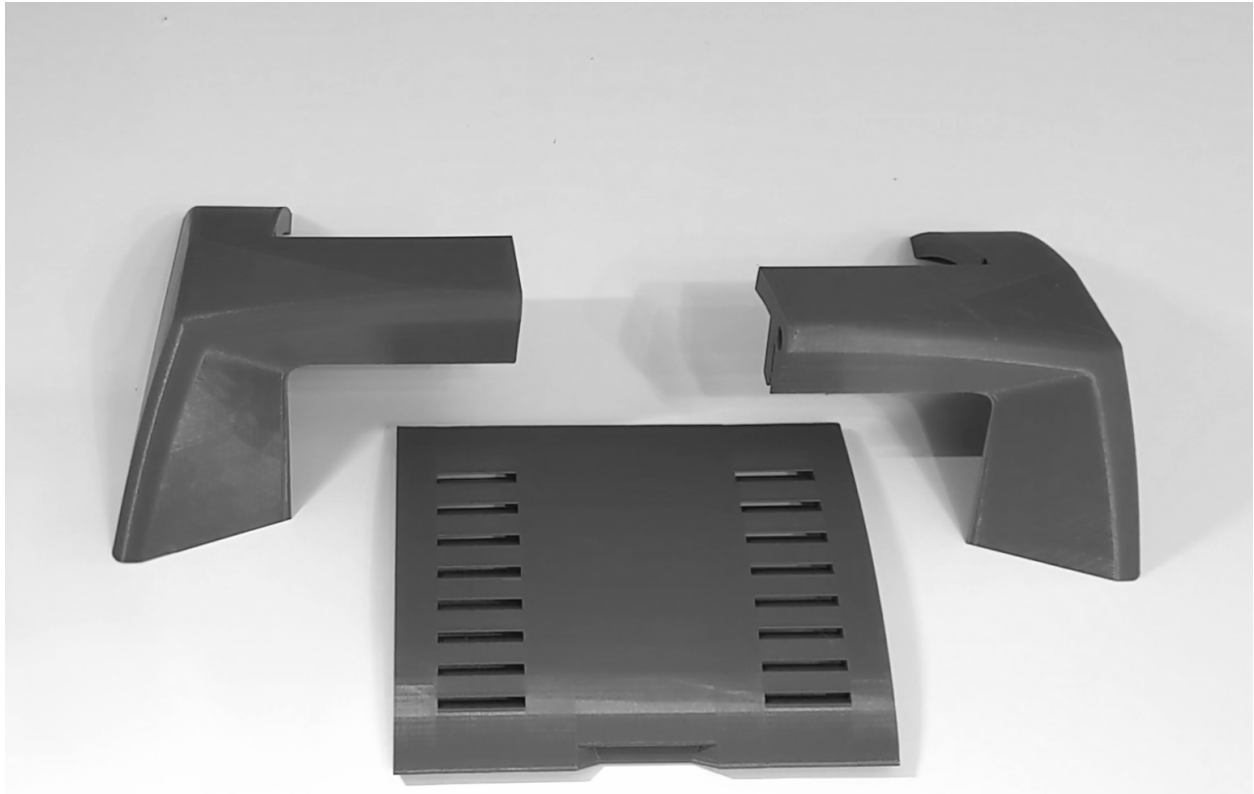
Step 7: Fasten the PSU and USB with the screenholder pins:



Step 8: Connect the two halves together (Please be patient and don't force too much):



Step 9: Gather the 2 top pieces and the hatch piece:



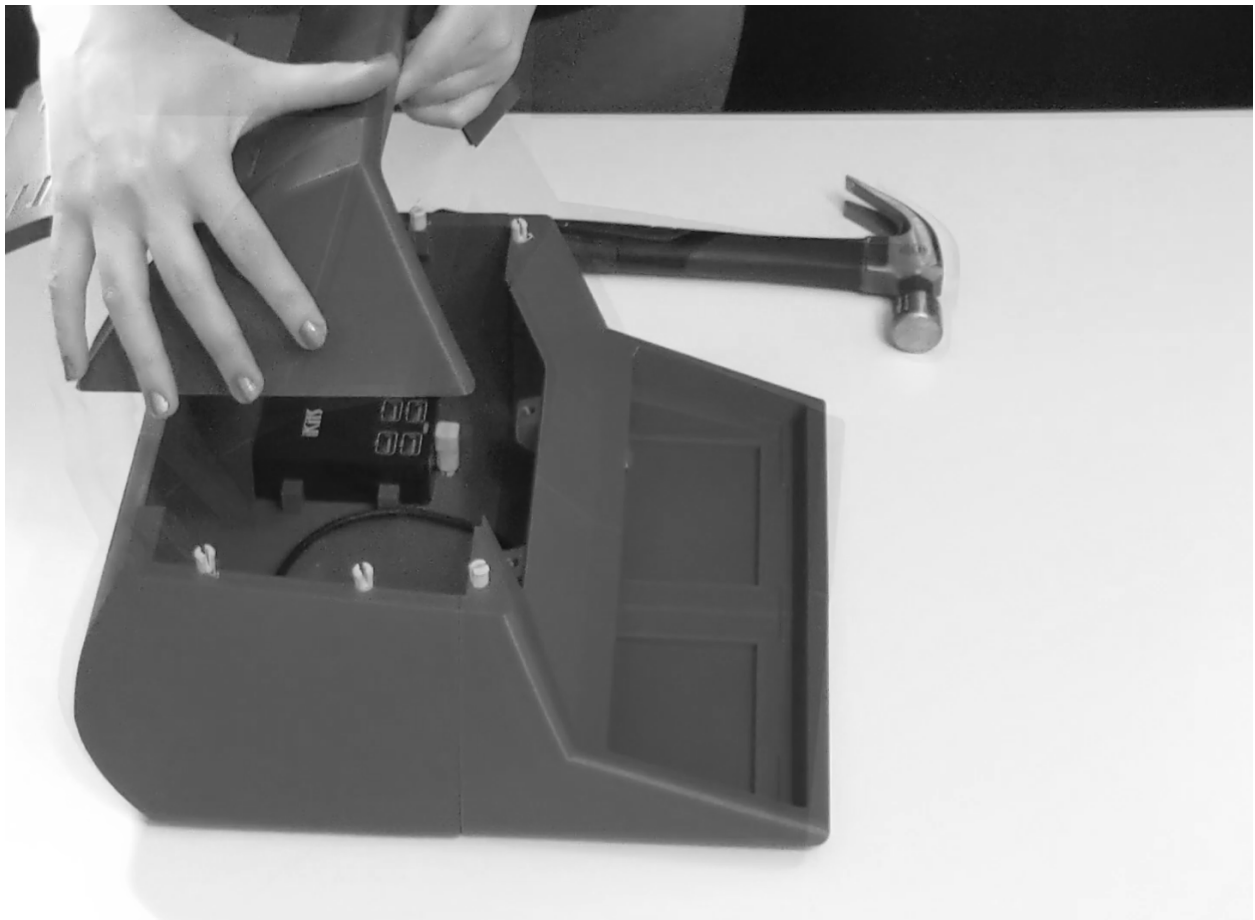
Step 10: Connect the hatch to one of the sides:



Step 11: Connect the other side to the hatch assembly:



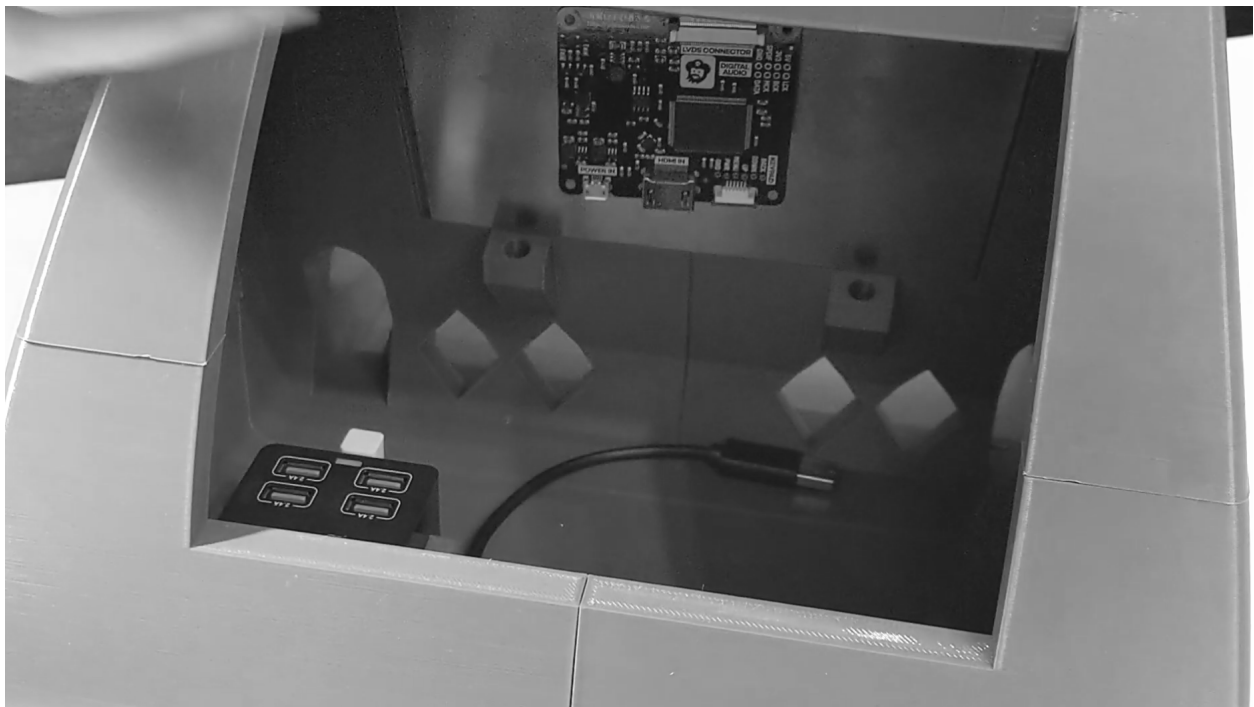
Step 12: Connect the top assembly to the bottom assembly:



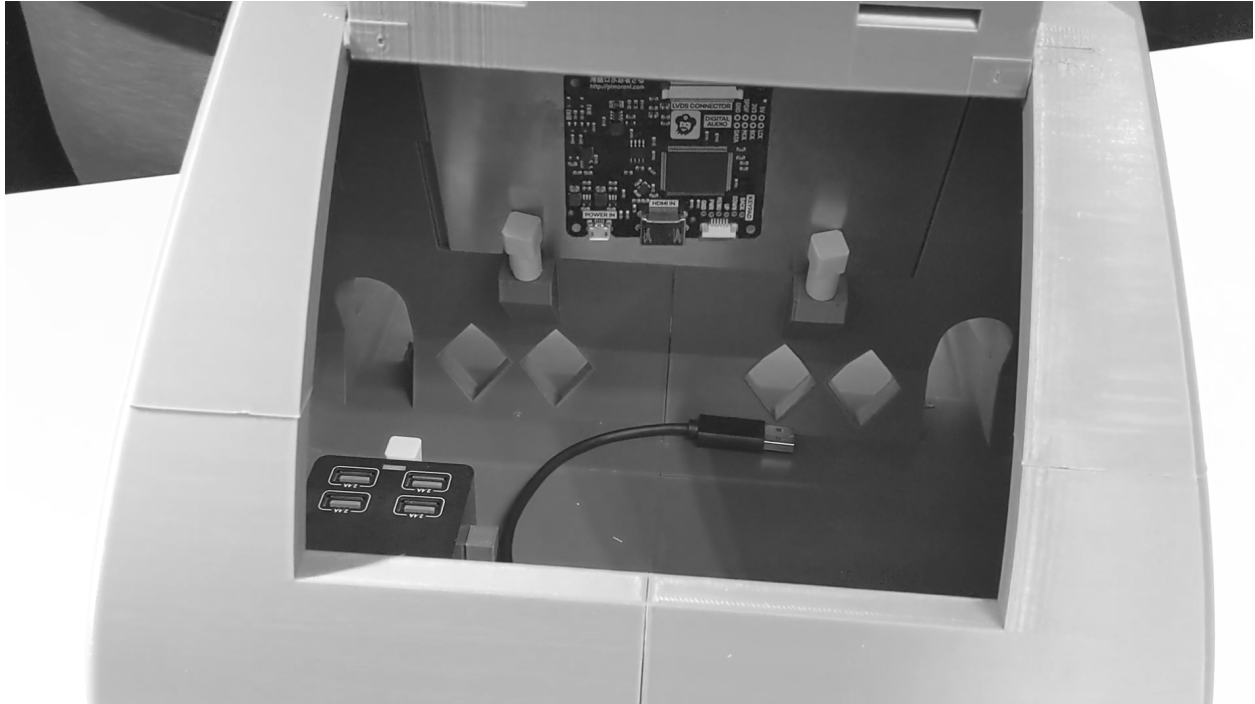
Step 13: Gather the LCD screen and open the hatch:



Step 14: CAREFULLY slide the screen into the top groove first and push it away from you until it fully rests into the screen cutout. (**WARNING:** We are not responsible for any broken equipment so please be very careful and gentle with your screen!)



Step 15: Place 2 screenholder pins into the holes behind the screen and fix the LCD board to the screen with electrical tape:



Step 16: Finally drop the keyboard into the keyboard holder:



Step 17: Use any computer you like with the Callisto 2. We used a Raspberry Pi 4 and hooked up the power cables to both the Pi & the LCD to the PSU. We then connected the HDMI cable from the Pi to the LCD. (**WARNING:** Be VERY CAREFUL with the LCD ribbon cable connected to the controller board)

Step 18: Enjoy your new 3D printed computer! Let us know how it went and send us an email at [solarhardwarecomputers@gmail.com](mailto:solarhardwarecomputers@gmail.com) . And please post a make if possible!