

pi-top

INSTRUCTION  
MANUAL



# Welcome

Welcome to the **pi-top** family!

**pi-top** is very special to us (and so are you, of course!). Your **pi-top** is part of the first batch ever created – we are hugely passionate about this product and are very excited to continue to provide excellent content and lesson plans so you can learn to make anything! We thank you very much for joining us on this exciting maker journey!

We believe **pi-top** is the best way to get started with hardware and software. If you open up a laptop, you void the warranty. If you open up a **pi-top**, you unlock a world of possibilities. As you grow and learn, **pi-top** will be part of your journey to expand your knowledge - the only limit is your imagination!

So, let's get started! We've worked hard to keep the manual simple, with a focus on easy image-based instructions. After assembly you can immediately log-in and start your projects, play the CEED Universe demo (our educational game) and much more!

Step through the world's gateway to technology.

With love,

The **pi-top** Team



For other available languages, please go to the link below

Weitere Sprachen siehe Link unten

Voor andere beschikbare talen, klik op de onderstaande link

Para outras línguas disponíveis, favor acesse o endereço abaixo na web

如需其它語言，請到以下鏈接獲取

For at læse på andre sprog, klik da på linket nedenunder

vous pouvez trouver l'information disponible dans d'autres langues si vous vous référez au lien ci-dessous

Για τις υπόλοιπες διαθέσιμες γλώσσες, κάντε κλικ στο ακόλουθο link

अन्य भाषाओं के लिए नीचे दिए गए लिंक पर क्लिक करें

بالنسبة للغات الأخرى المتاحة ، يرجى الدخول إلى الرابط أدناه

Per le altre lingue disponibili, visitate il link qui sotto.

他の言語は下のリンクからお選びください

Para otros idiomas, haga clic en el enlace.

Inne wersje językowe można znaleźć pod poniższym adresem.

Для других языков перейдите по следующей ссылке

Untuk bahasa yang lain, sila kunjungi link di bawah.

[www.pi-top.com/#/help/build](http://www.pi-top.com/#/help/build)

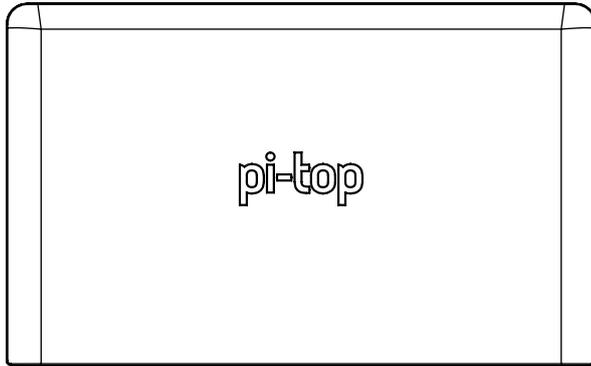
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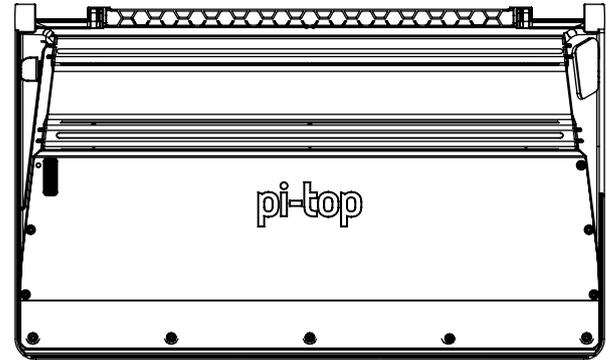
For further help with assembling pi-top, please go to:  
[www.pi-top.com/#!/help/build](http://www.pi-top.com/#!/help/build)

# Getting Ready: What's in the Kit?

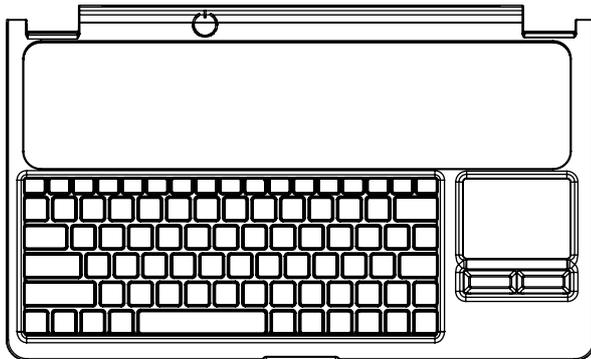
LID



\*BASE



BASE TOP



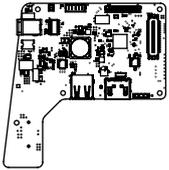
ACRYLIC SLICE



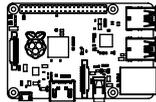
\*Warning: Base houses pi-top's Smart Battery Pack which contains lithium polymer cells – handle with great care.

# Getting Ready: What's in the Kit?

HUB



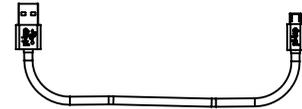
RASPBERRY PI



HDMI CABLE



MICRO USB CABLE



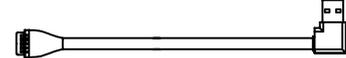
GPIO BREAKOUT CABLE



POWER CONTROL CABLE



KEYBOARD CABLE



\*PCB SCREWS X8



\*PCB SPACERS X8



\*M2.5 NUTS X9



\*SML ALLEN KEY



\*LRG ALLEN KEY



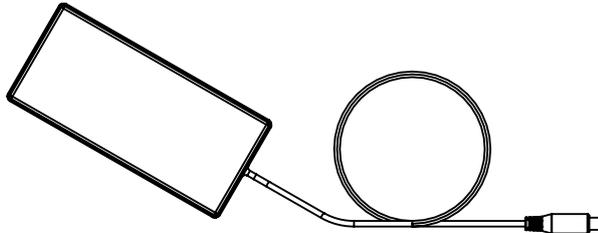
\*MICRO SD CARD



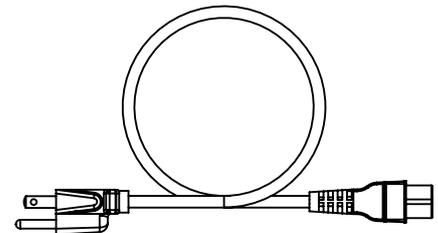
\*WIFI DONGLE



AC TO DC ADAPTER



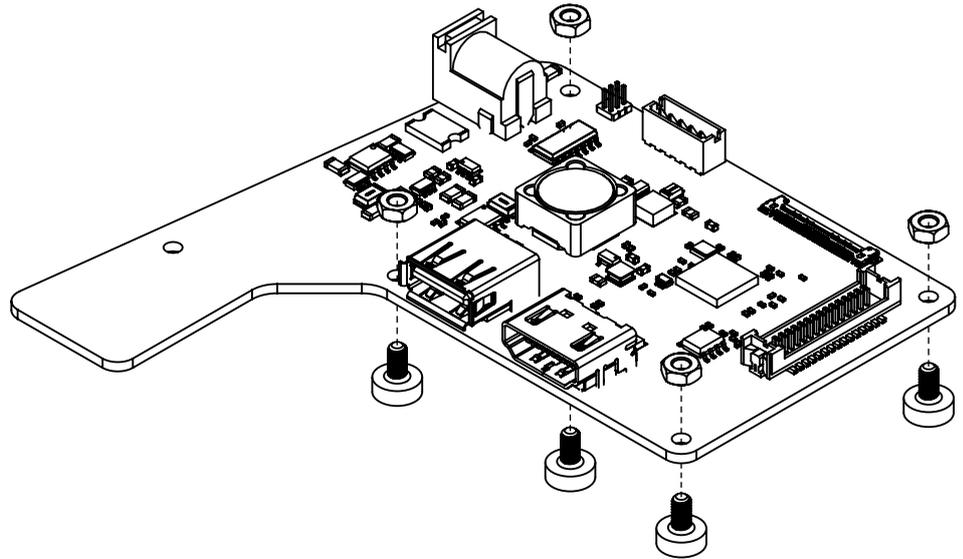
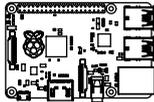
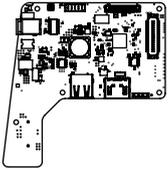
MAINS AC CABLE



\*Warning: Choking hazard – small parts not suitable for children under 3 yr old.

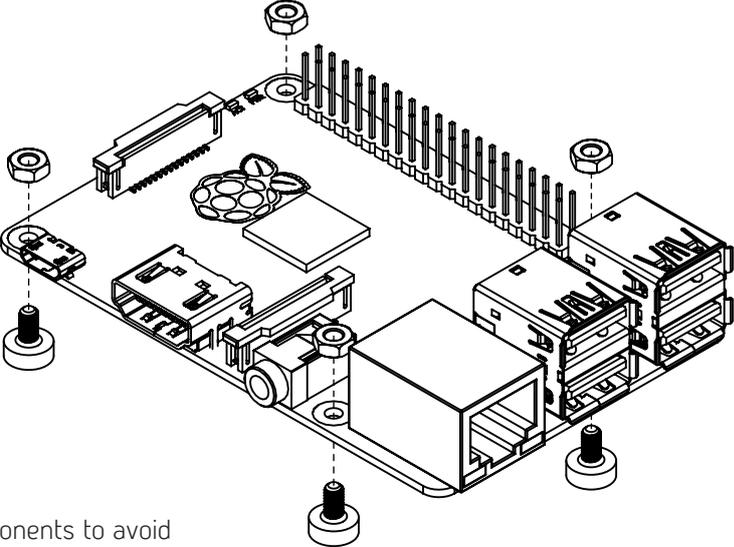
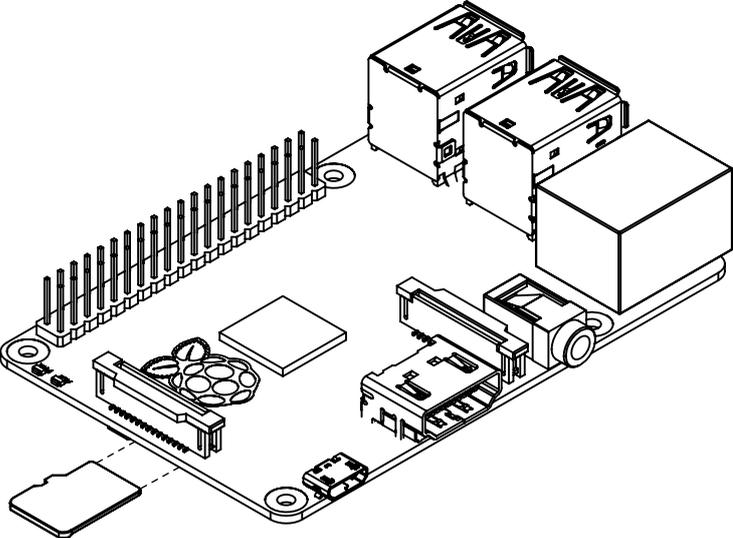
# Step 1-1: Prepare PCBs

## YOU WILL NEED



Caution: Be sure to work on a surface free of static electricity.

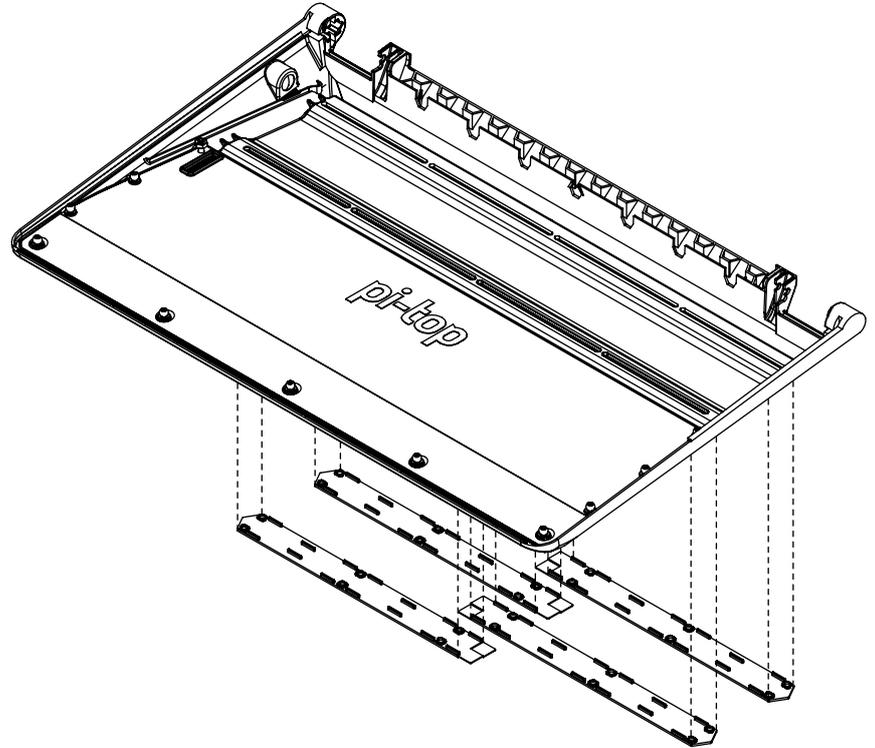
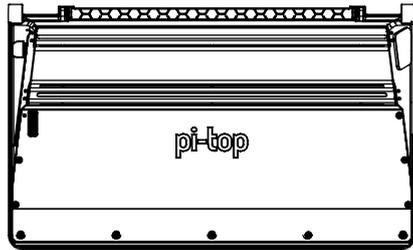
# Step 1-2: Prepare PCBs



Caution: Keep spacers and nuts away from PCB tracks and components to avoid damaging PCB

## Step 2: Prepare Base

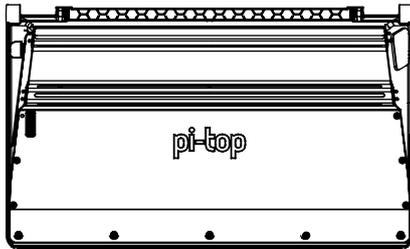
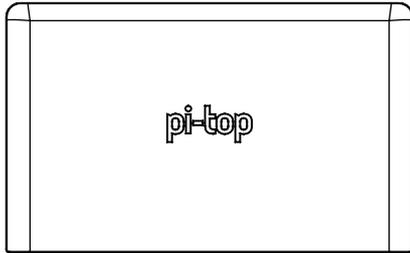
YOU WILL NEED



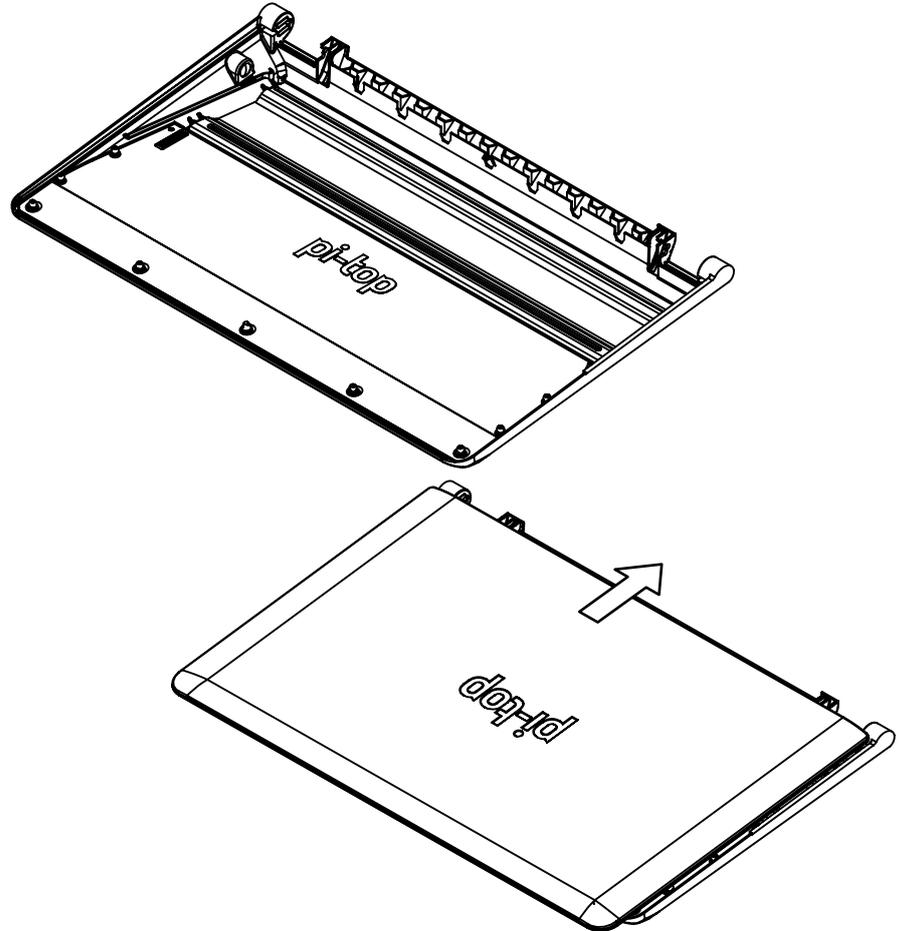
Remove Rail Covers from bottom of the Base. They are magnetically attached and you can re-attach them after you finish the whole assembly.

## Step 3-1: Attach Lid

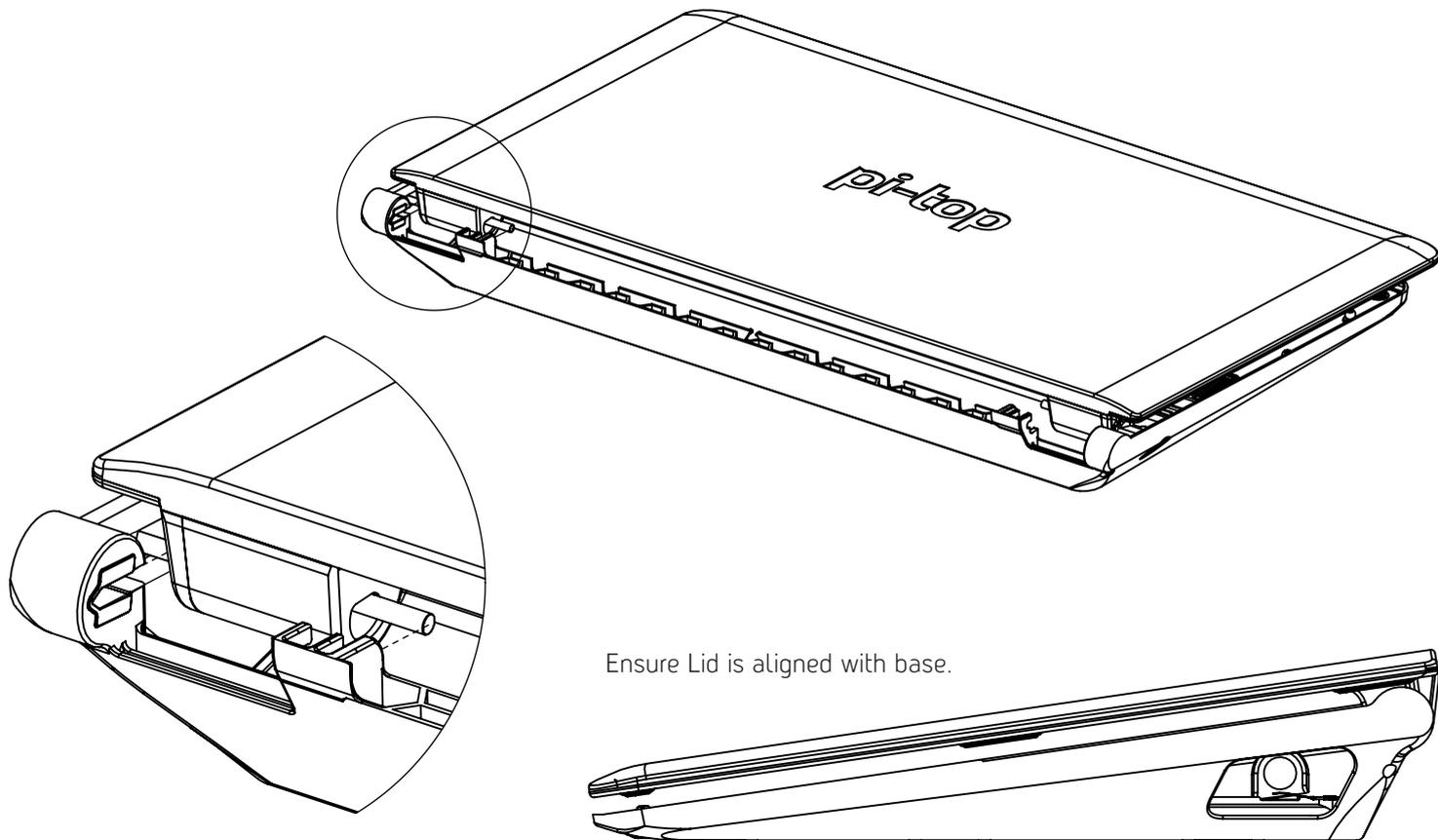
YOU WILL NEED



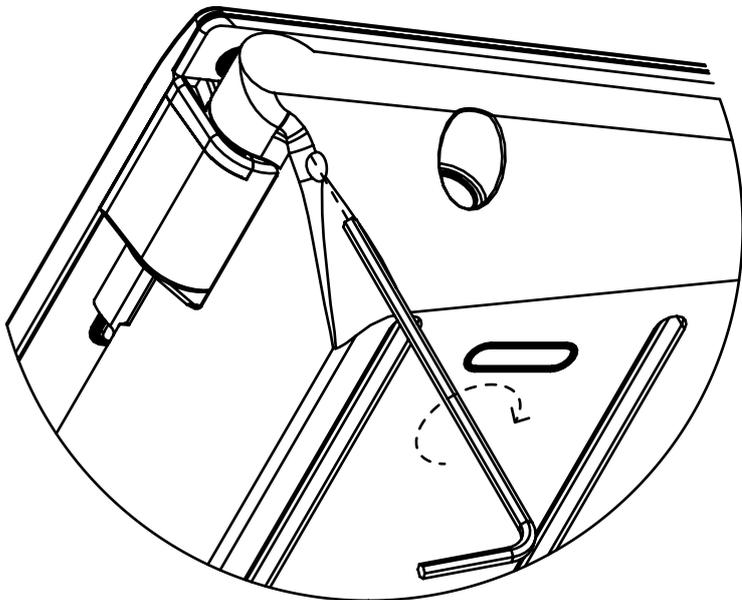
1.25mm



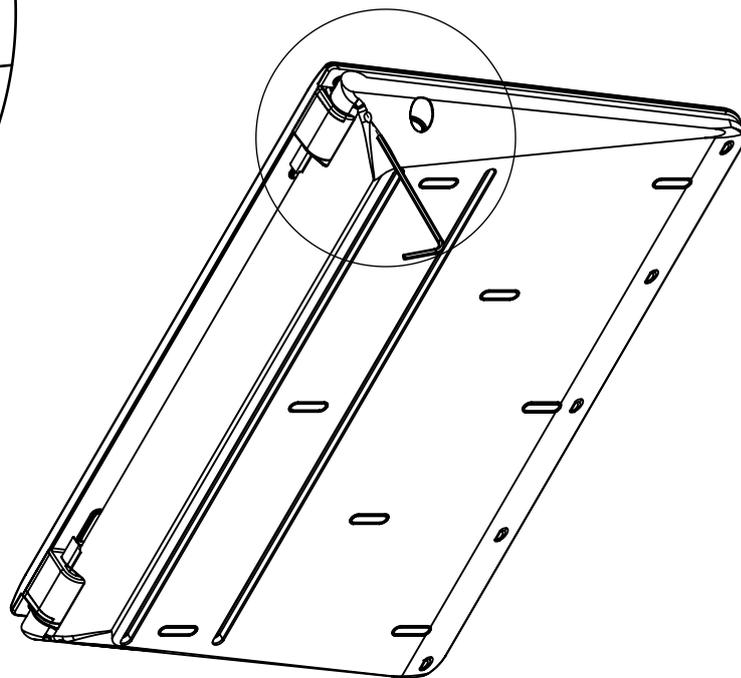
## Step 3-2: Attach Lid



## Step 3-3: Attach Lid

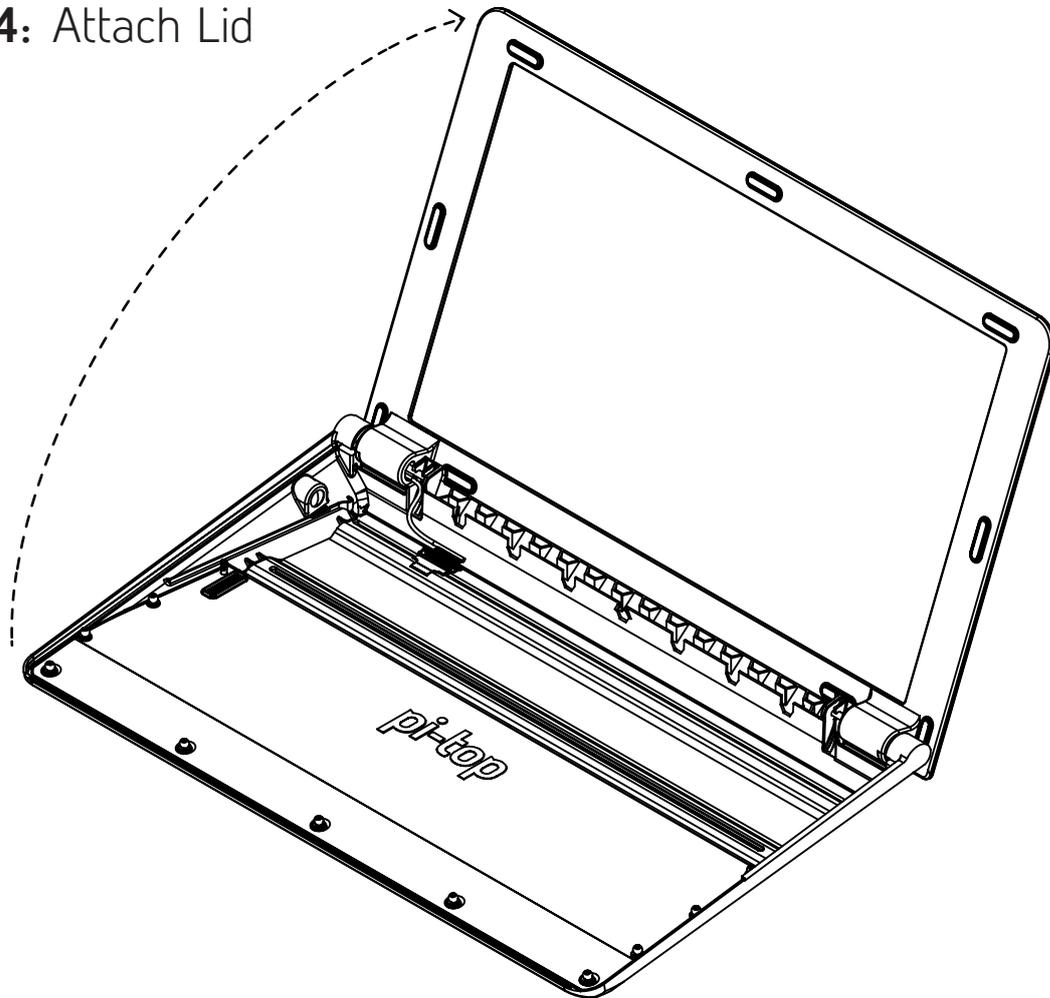


Keep the Lid aligned as you gently tighten screw.

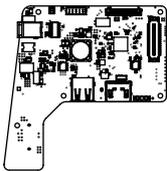


Caution: Do not over tighten to avoid damaging screw head.

## Step 3-4: Attach Lid



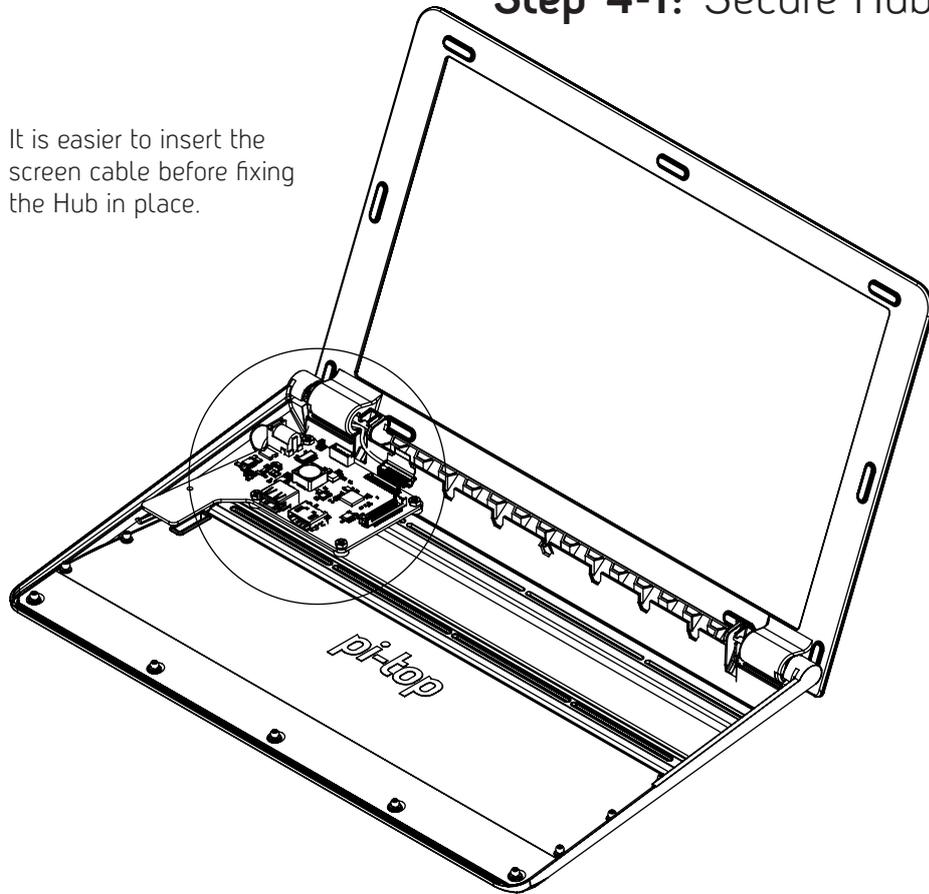
## YOU WILL NEED



2mm

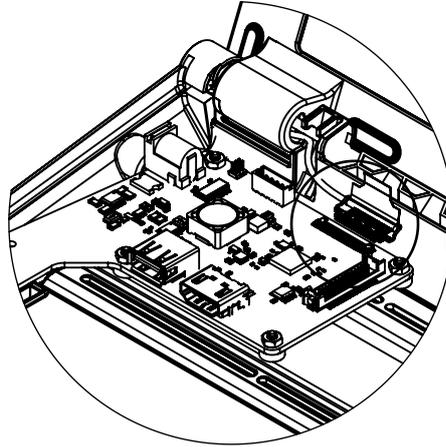
## Step 4-1: Secure Hub

It is easier to insert the screen cable before fixing the Hub in place.

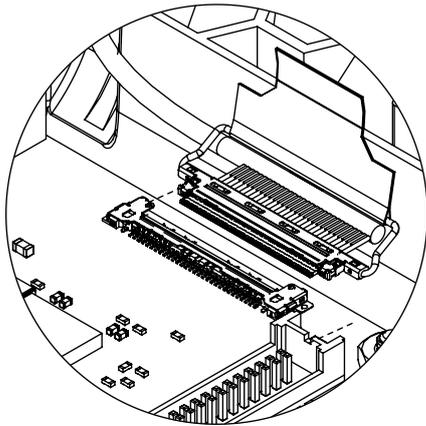


Caution: Ensure battery connector on Hub doesn't make contact with battery until Step 4-3.

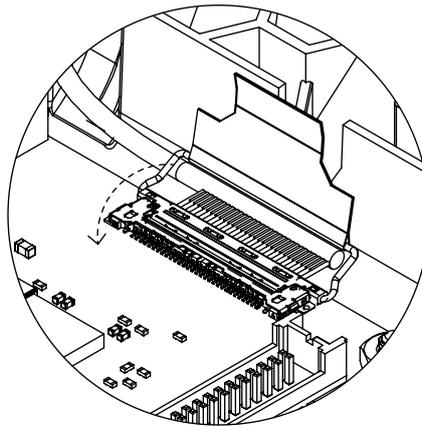
## Step 4-2: Secure Hub



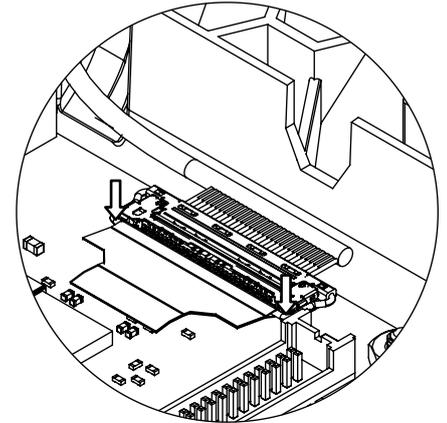
Align and insert



Rotate locking bar

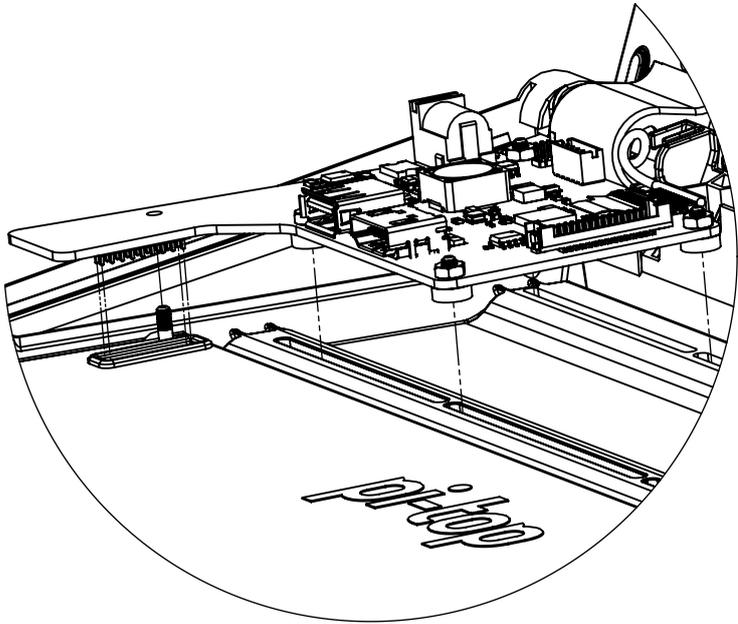


Gently push down on both sides until it clicks and is secured

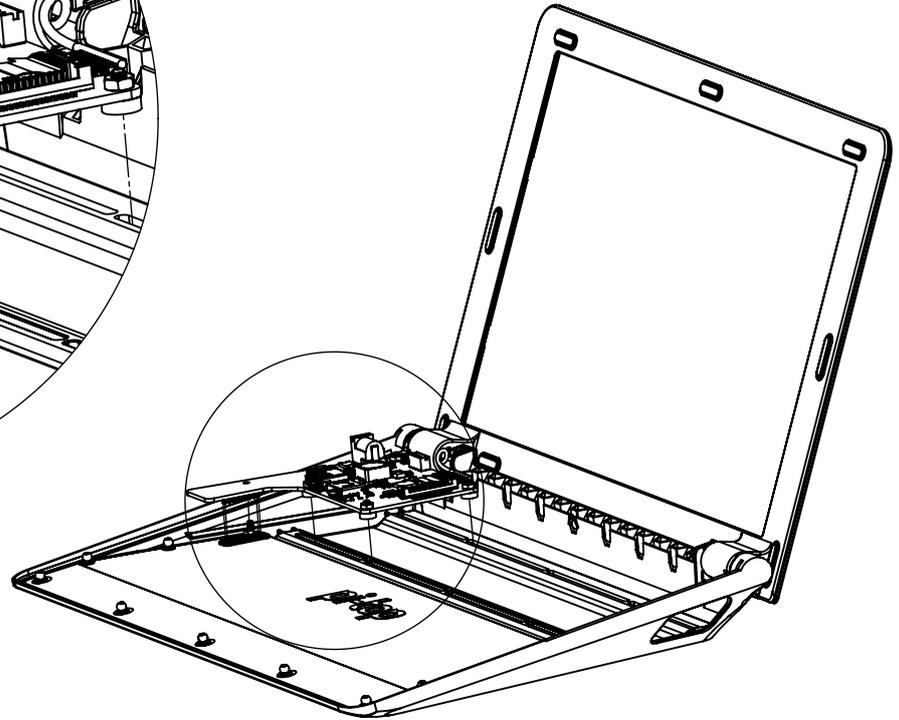


Caution: Take extra care to properly align and do not use excessive force.

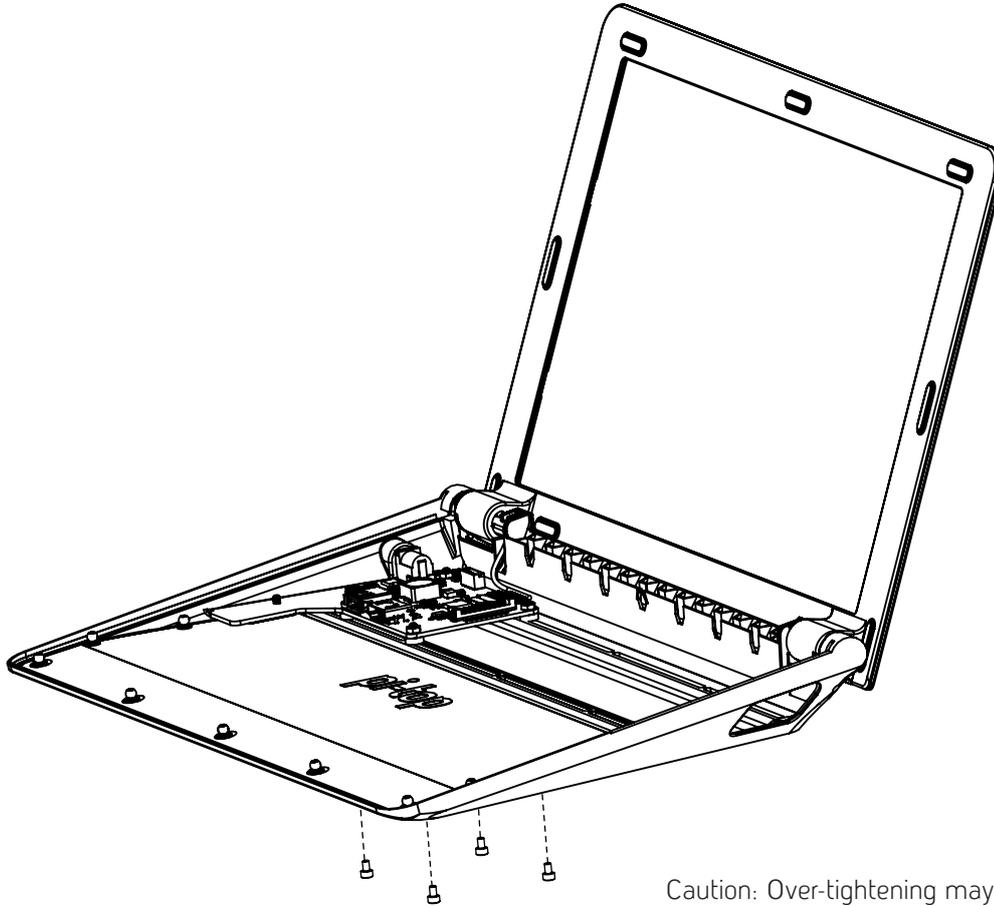
## Step 4-3: Secure Hub



While keeping the left-side of the Hub aligned to the Base, press down on the battery symbol on the Hub until you feel the connector insert fully into battery.



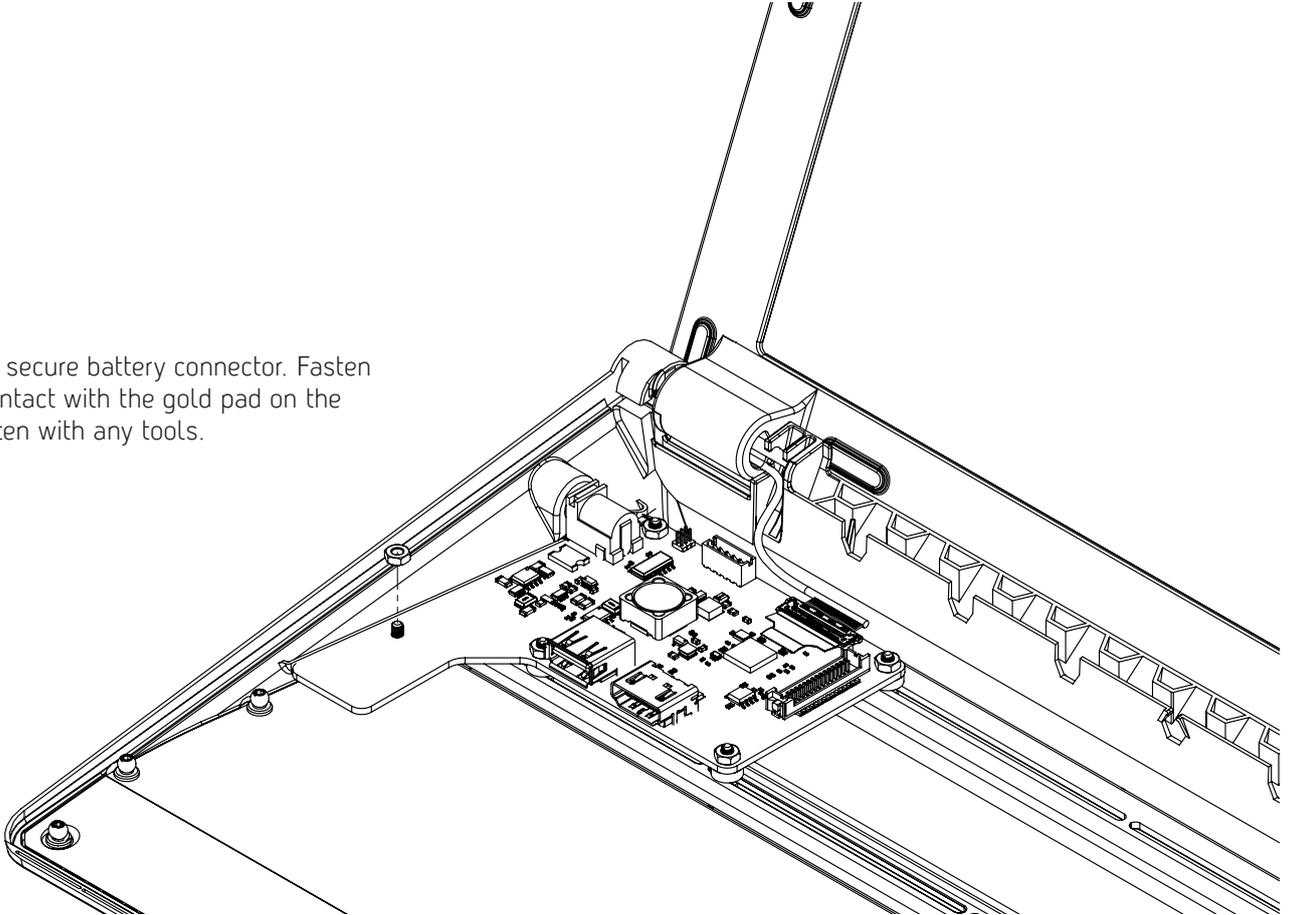
## Step 4-4: Secure Hub



Caution: Over-tightening may damage PCB spacers – gently tighten until they just grip the Base.

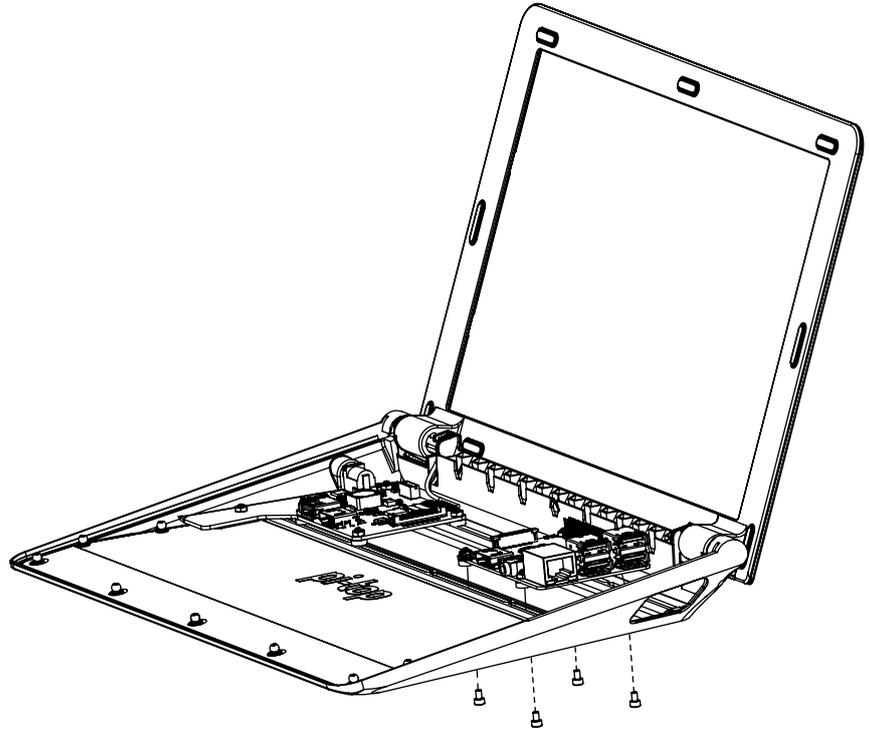
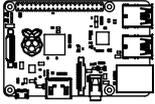
## Step 4-5: Secure Hub

Use M2.5 nut to secure battery connector. Fasten until it makes contact with the gold pad on the Hub, do not tighten with any tools.



## Step 5: Install Raspberry Pi

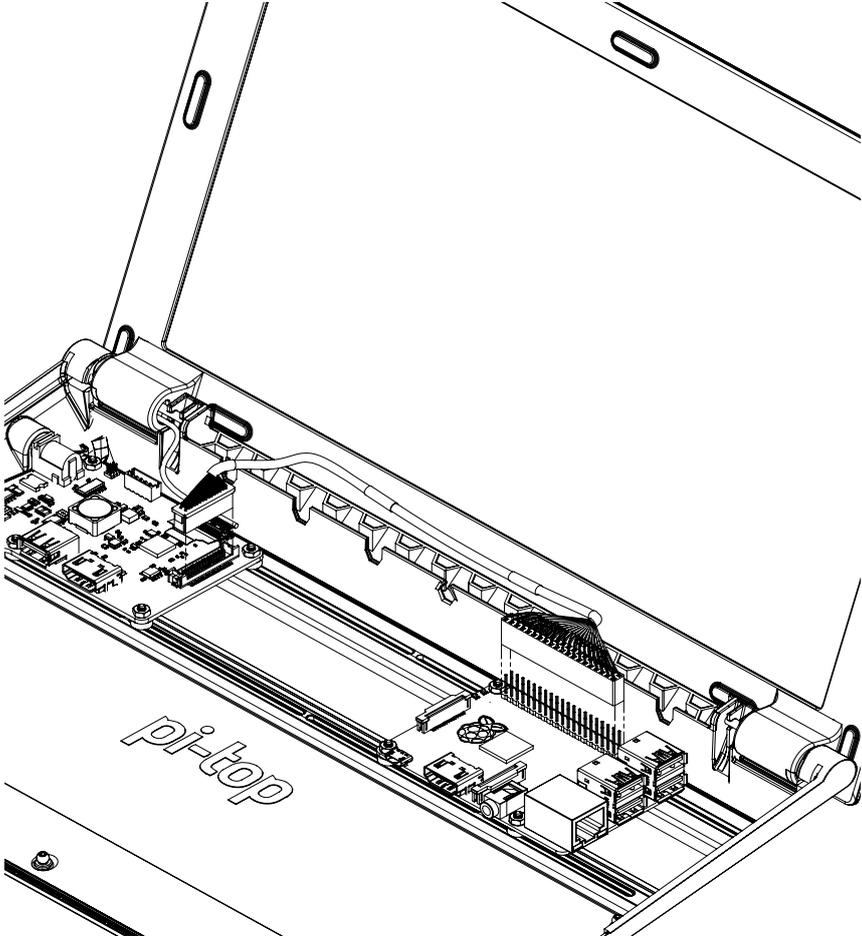
### YOU WILL NEED



Caution: Over-tightening may damage PCB spacers – gently tighten until they just grip the Base.

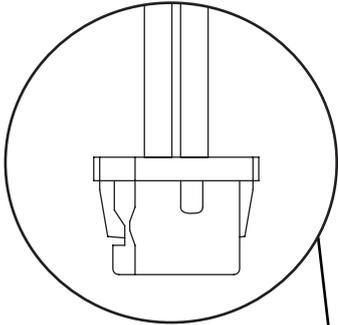
# Step 6-1: Plug in Cables and WiFi Dongle

YOU WILL NEED

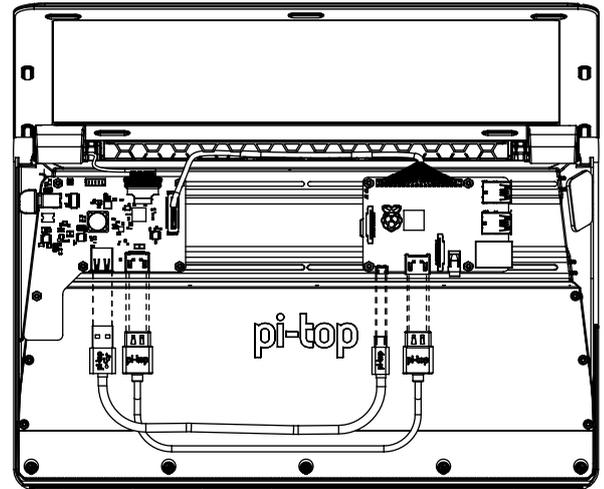
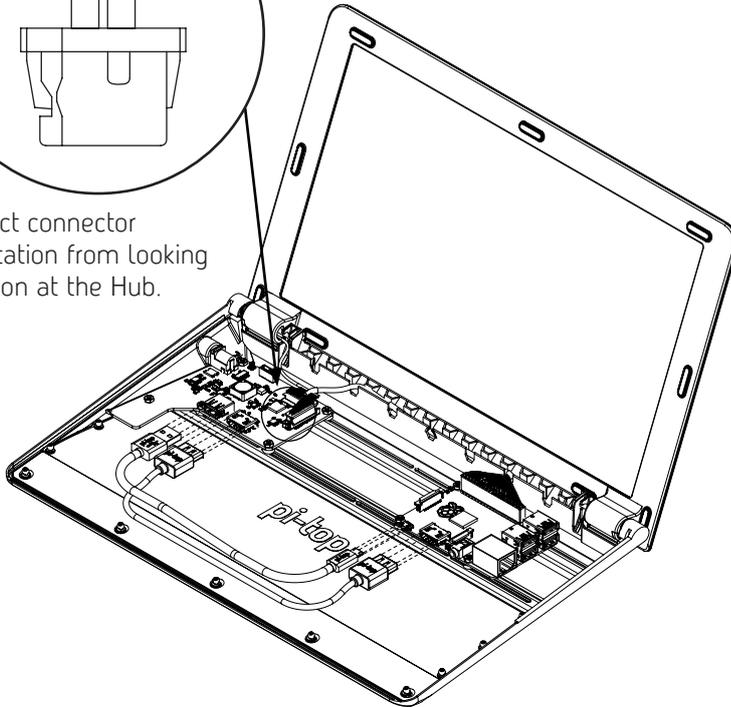


## Step 6-2: Plug in Cables and WiFi Dongle

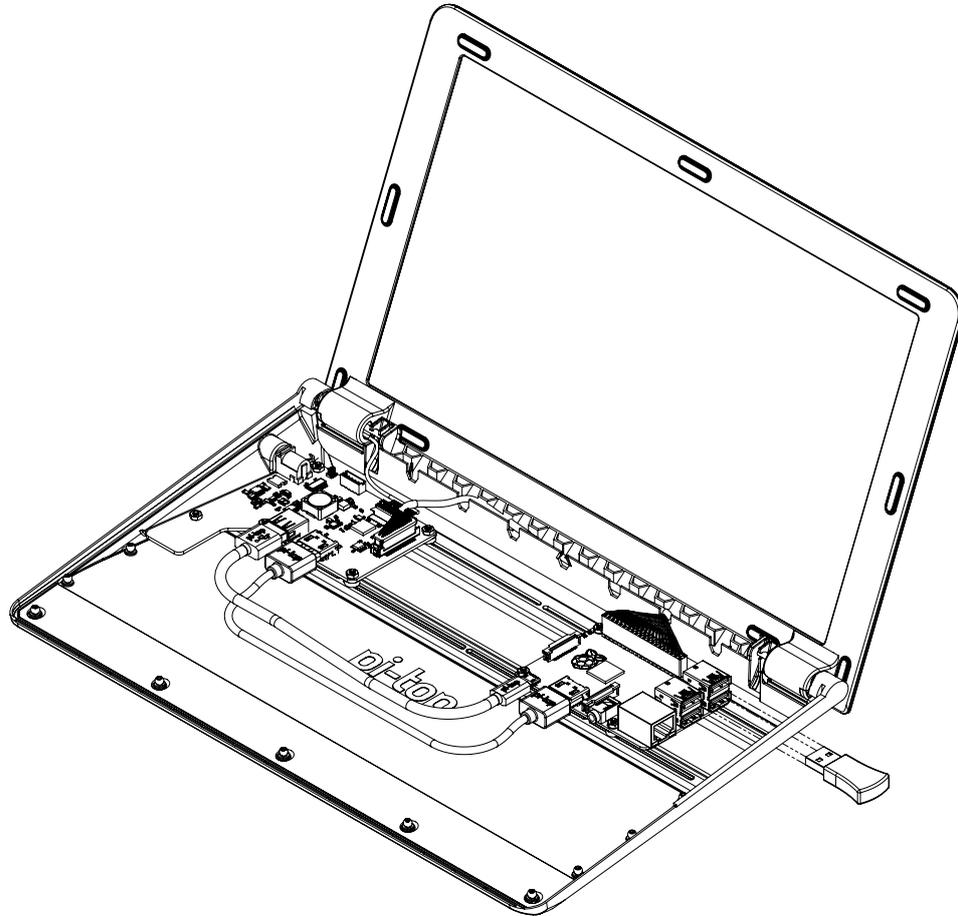
Be sure to insert the breakout cable the right way into the hub to avoid damaging the pins inside!



Correct connector orientation from looking front on at the Hub.

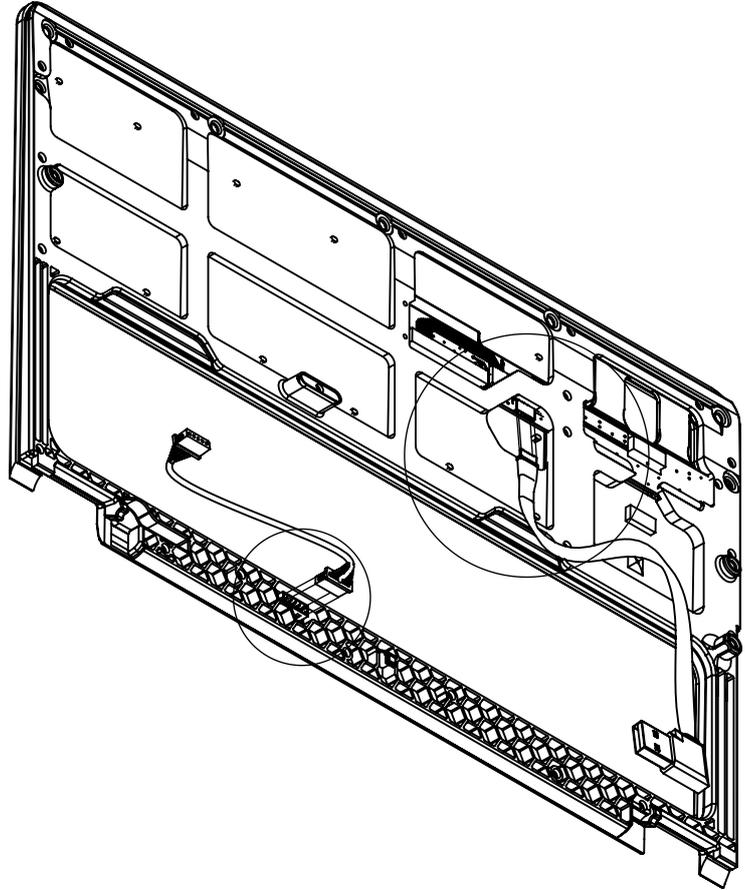
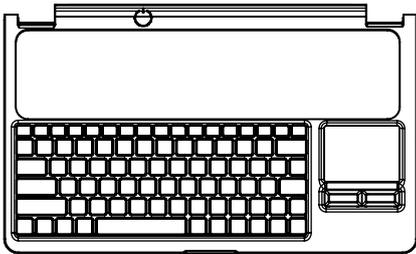
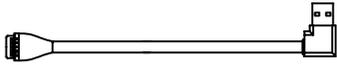


## Step 6-3: Plug in Cables and WiFi Dongle



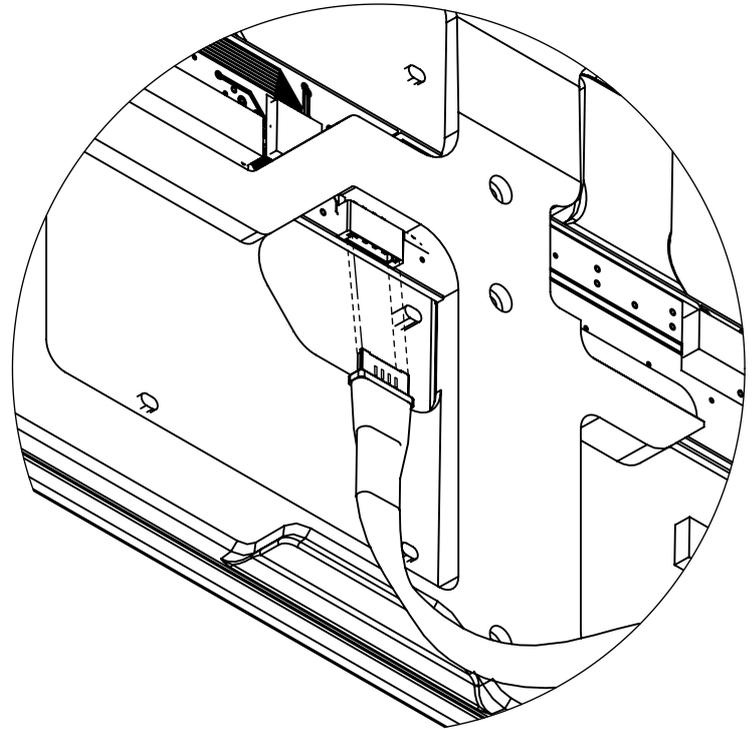
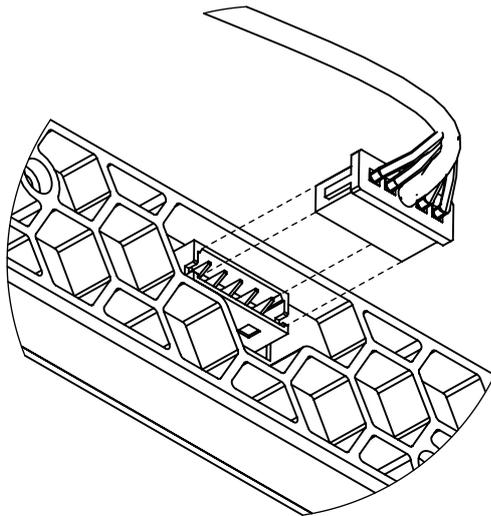
## Step 7-1: Prepare Base Top

YOU WILL NEED



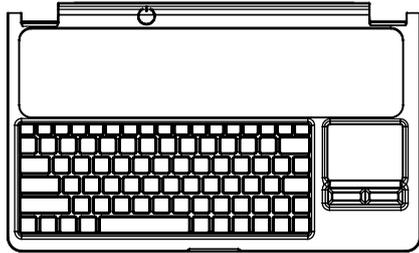
## Step 7-2: Prepare Base Top

Keyboard Connector can become loose with excessive cable movement, ensure it is fully inserted before attaching Base Top

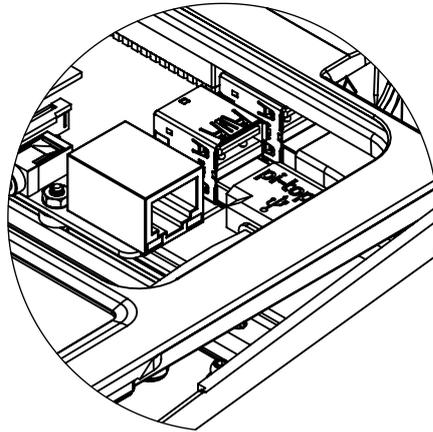


## Step 8-1: Attach Base Top

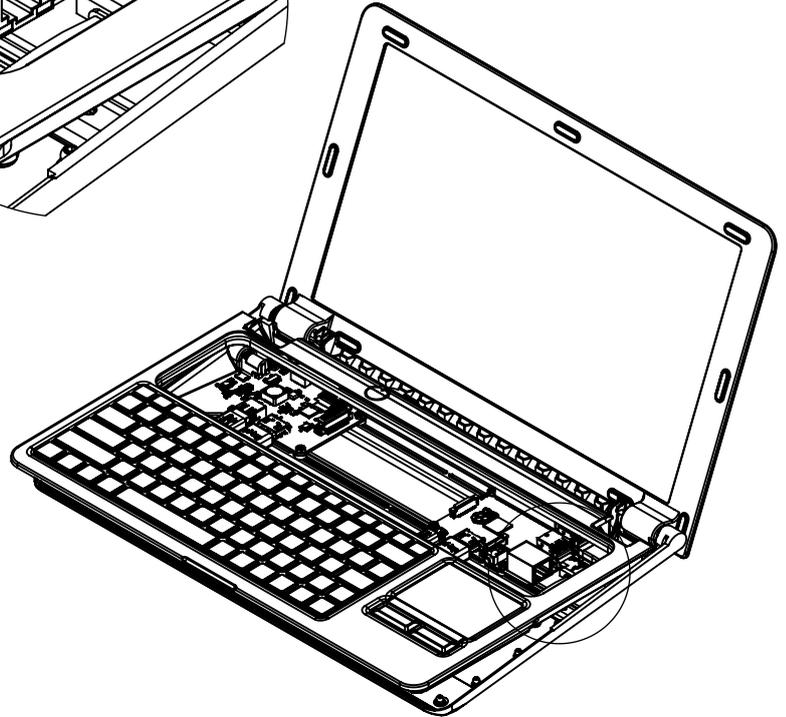
YOU WILL NEED



pi-top

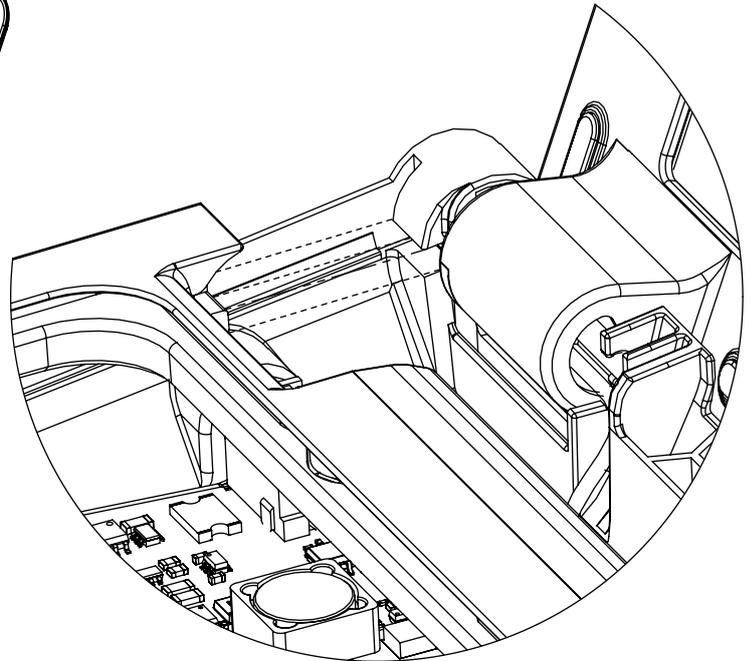
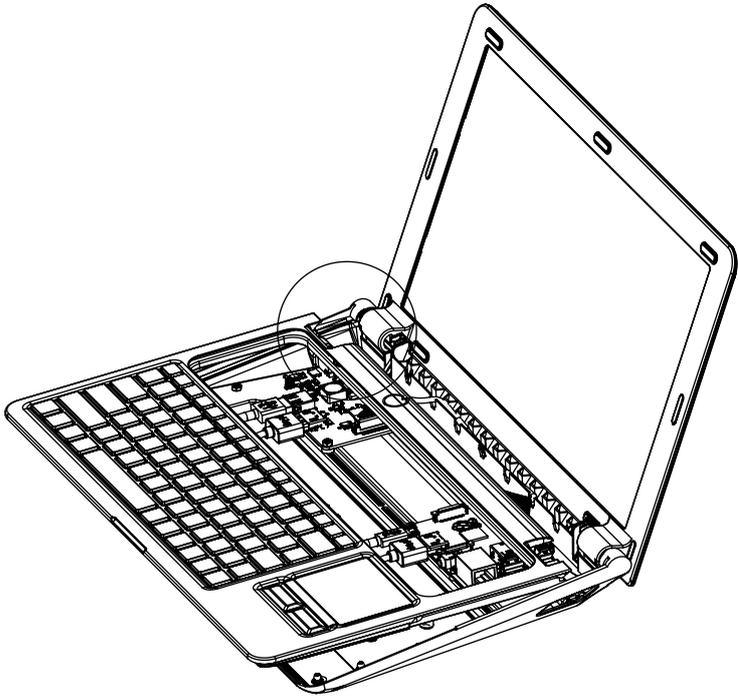


Insert the Keyboard USB.

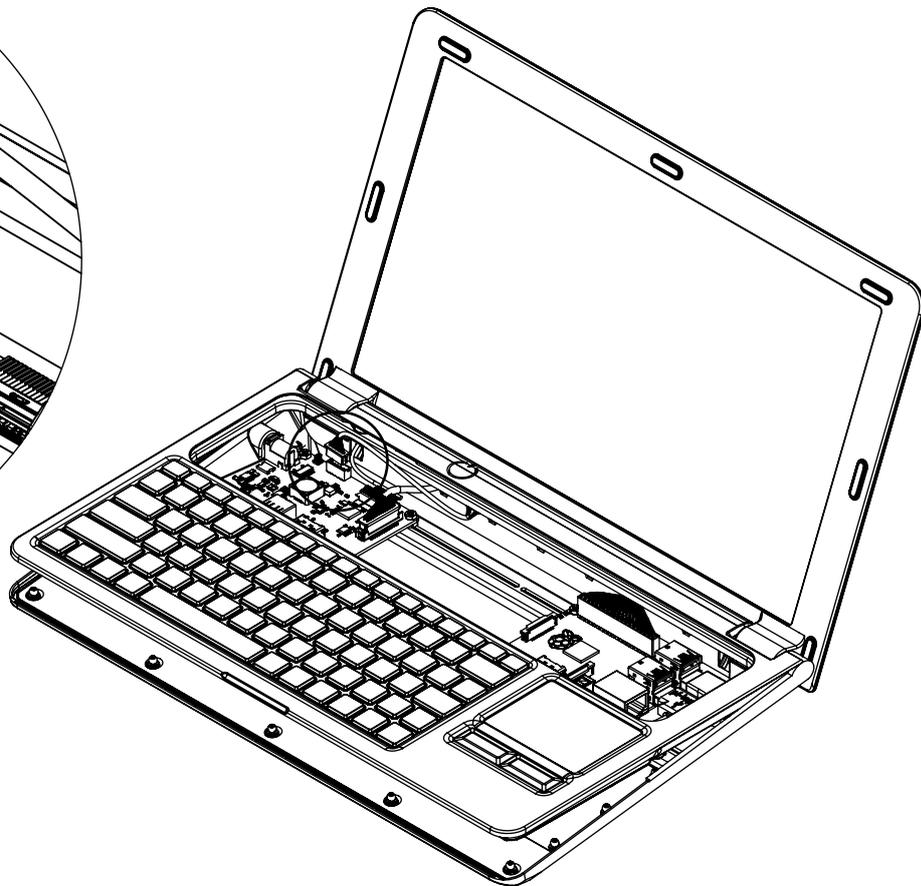
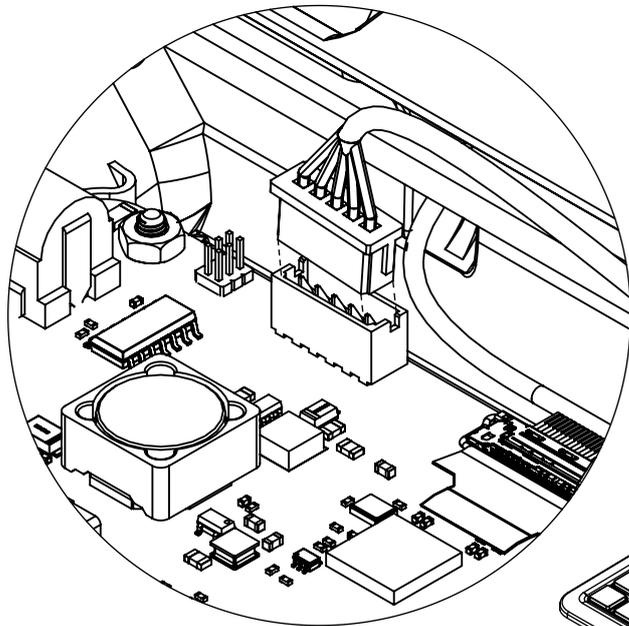


## Step 8-2: Attach Base Top

The tabs on the Base Top push into the same slots as the Hinges did when inserting the Lid in Step 3-1.

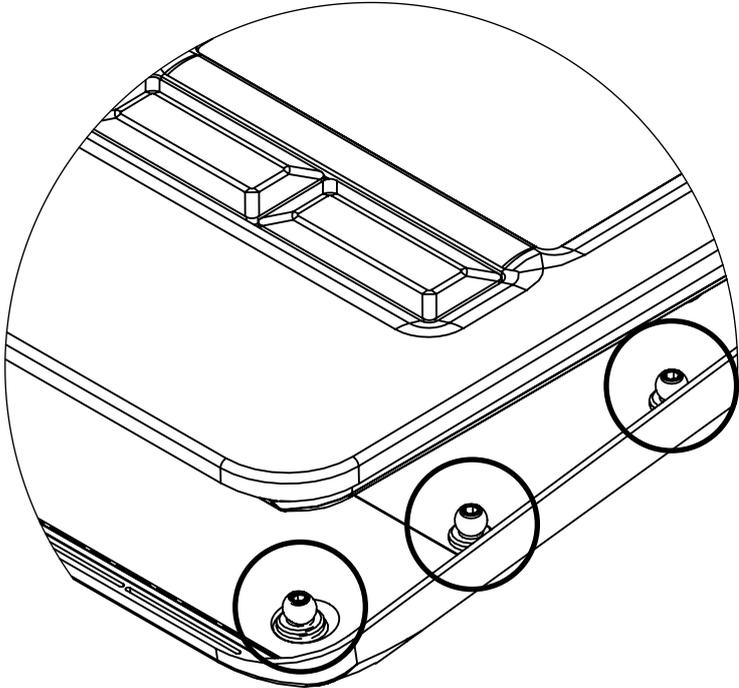


## Step 8-3: Attach Base Top



Insert Power Control Cable into Hub.

# Step 8-4: Attach Base Top

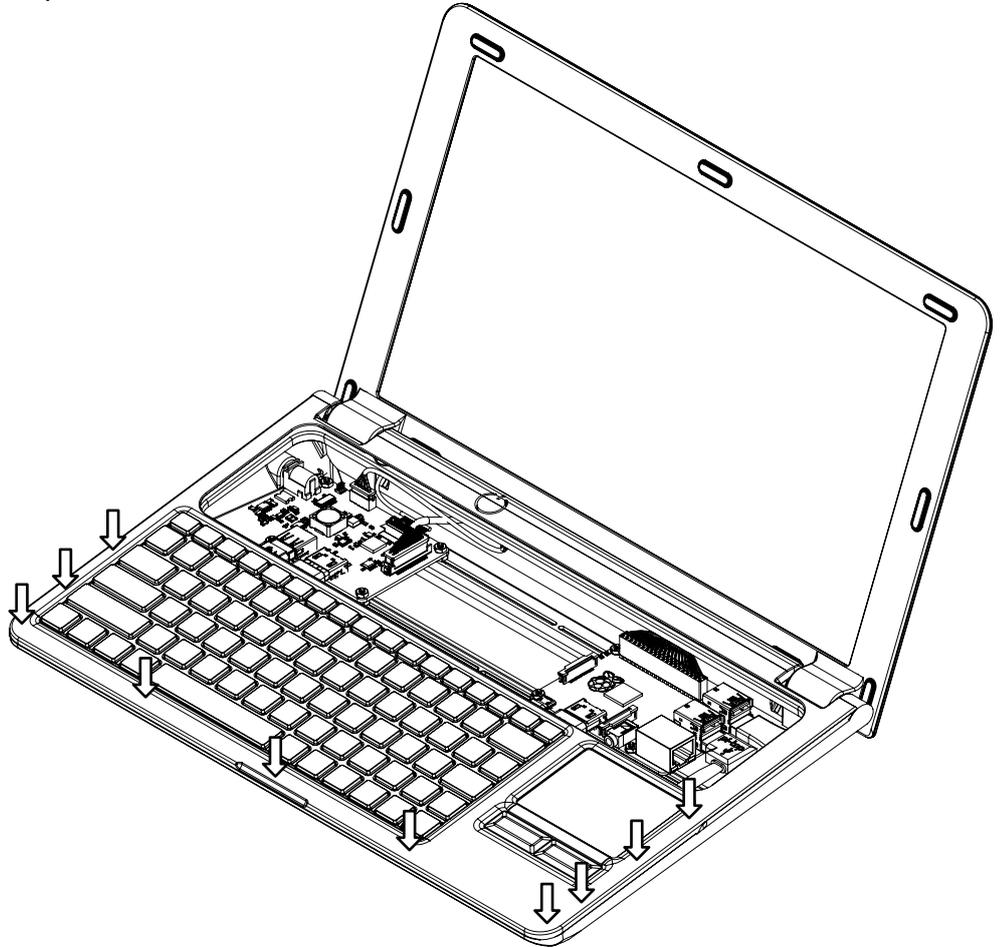


Ball Headed Screws

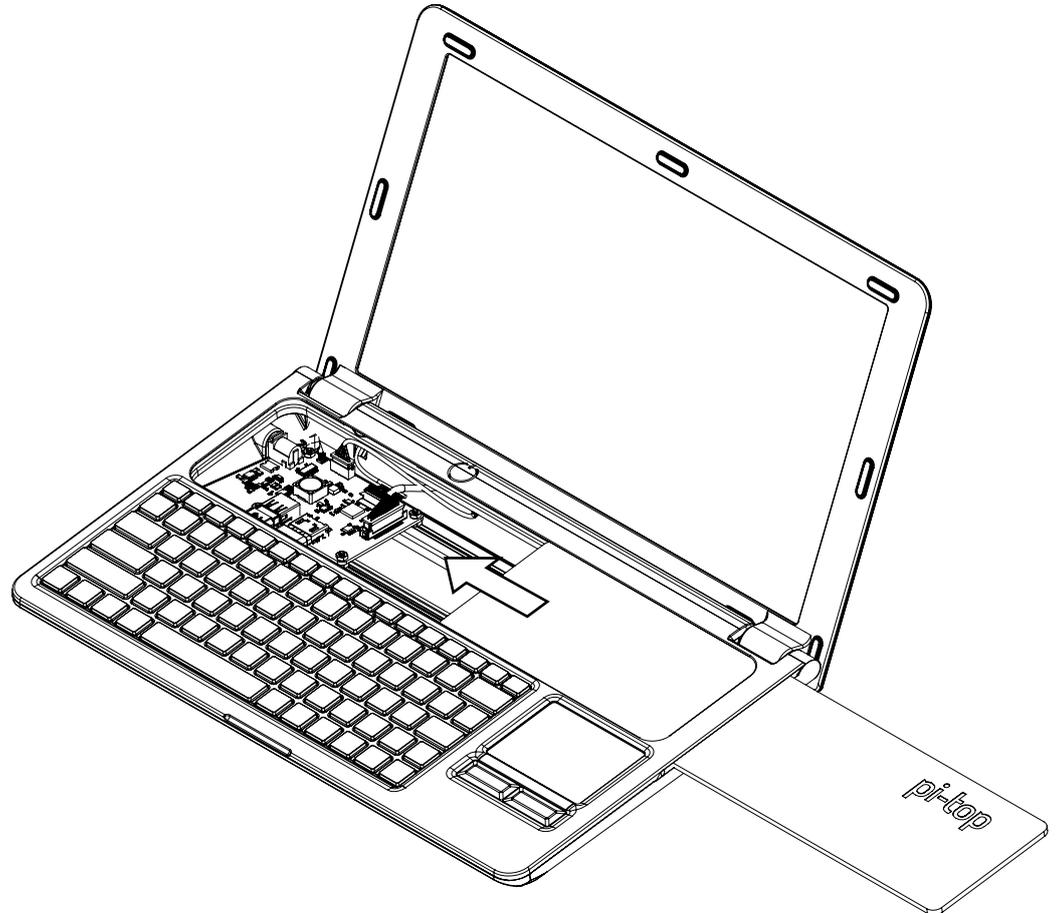


## Step 8-5: Install Base Top

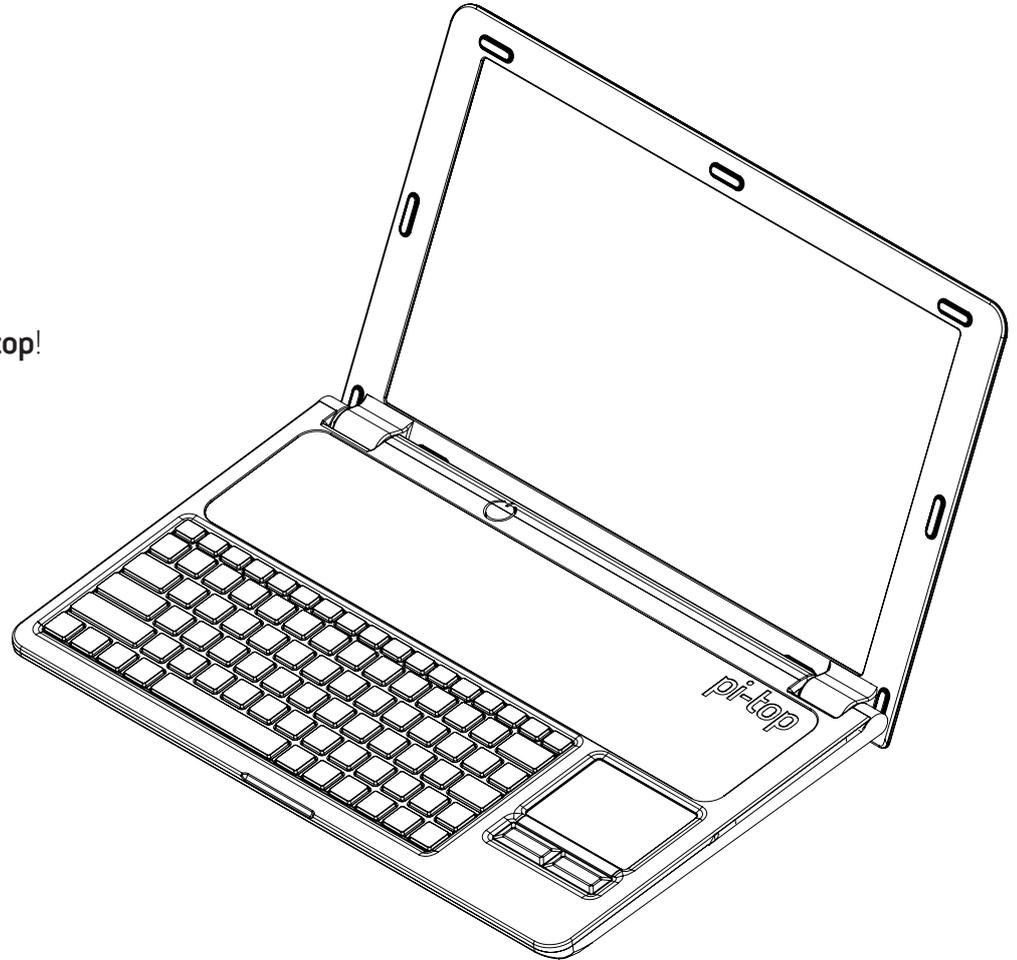
Once Base Top is aligned and in position, it can be pushed down to pop onto the Ball Headed Screws. Each ball position should be squeezed together to ensure it has popped into place.



## Step 8-6: Install Base Top



Congratulations, you've built a **pi-top!**



## Powering Up

- Plug in the mains adapter. This will wake the battery up from shipping mode.
- After a few seconds, the green LED underneath the power button will start to pulse.
- Press and hold the power button for 1-2 seconds

## Using pi-topOS

- Visit [www.pi-top.com/#/help/OS](http://www.pi-top.com/#/help/OS)

## Powering Down

- To communicate with the Raspberry Pi that you wish to shut down, hold down the power button for 2-3 seconds.
- Shutdown can also be triggered from **pi-topOS**.
- To force shutdown, hold down the power button for 5-6 seconds. Warning: this can cause SD Card corruption.



## Disclaimer

This is a build-it-yourself device, we ask you take extra care when putting together your **pi-top**. Remember, circuit boards, although durable, will break if you don't treat them with care.

CEED LTD is not responsible for any of the below:

- Personal injury or damage to product resulting from removal of battery cover and/or Smart Battery PCB (located underneath metal battery cover). Working with lithium polymer cells is dangerous and should only be carried out by a trained engineer, hence why the battery pack is provided fully assembled and protected by a sheet of stainless steel.
  - Data loss as a result of SD Card corruption.
  - Damage to cables from excessive force and/or misalignment when plugging in connectors.
  - Any electrical injury resulting from misuse of **pi-top** components.
  - Damage to the PCB resulting from user error. Please ensure that you are free of static electricity when handling PCBs to prevent unwanted electrostatic discharges from damaging sensitive electronics components.
  - Malfunction of components as a result of mishandling.
  - Damage to the screen as a result of tampering or accidental breakage.
  - All damage as a result of contact with liquids, including any injuries electrical or otherwise as a result of such action.
- Use of solder - this product comes in a modular design and no soldering is required.
  - Choking of any user; all children under age of 8 using **pi-top** must be supervised during assembly and play, adults not excluded from liability disclaimer if choking also occurs. There are small parts to any electronic device and you must be sure your child or student uses **pi-top** in its intended fashion.

We ask that if you are in doubt of how to use **pi-top** or are unsure about the instructions provided within that you please contact us on [build@pi-top.com](mailto:build@pi-top.com) for any support you require.









# pi-top

DESIGNED IN LONDON  
ASSEMBLED BY YOU



[www.pi-top.com](http://www.pi-top.com)