



# PINT BATTERY CASING – PRINT AND USE GUIDE

## Guide intention:

This guide is designed to serve other makers who are interested in constructing their own VOW Battery casing, detailing the necessary steps from 3D printer to being board ready.

This guide will not detail specific printer settings nor slicer use as that will be user dependent. It will only detail from finished print onwards to board install.

## Item/Materials List:

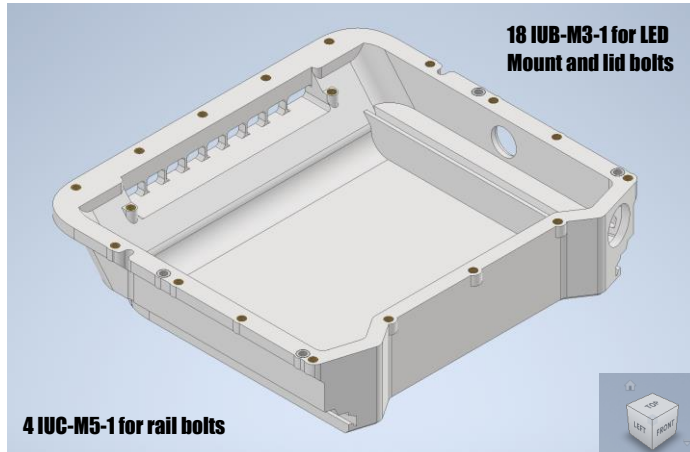
- Approx. 300 grams Bambu Lab PAHT-CF or technical equivalent
- Bambu X1-C or suitably capable 3D printer
- Soldering Iron with heated insert attachment
- IUC-M4-1 or equivalent (4x)
- IUB-M3-1 or equivalent (18x)
- M3 8mm countersunk Torx bolts (18x)
- 2mm adhesive sided neoprene foam sheet
- Goretex breather patch (20mm)
- M20 Cable Gland or VOW Swap plug
- TFL Badger kit (optional)

## If using LED window version:

- Double sided clear gel tape
- PETG sheet (140mm \* 14mm)

## 1. Insert install

Once the XR Standard battery casing and lid are printed, use a soldering iron preferably with a heat insert attachment to install the steel M4 inserts in the larger rail mounting holes, and the brass M3 inserts in the smaller, lid mounting holes.

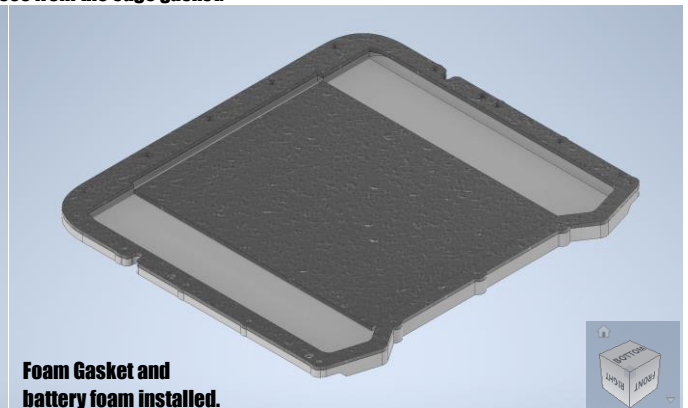
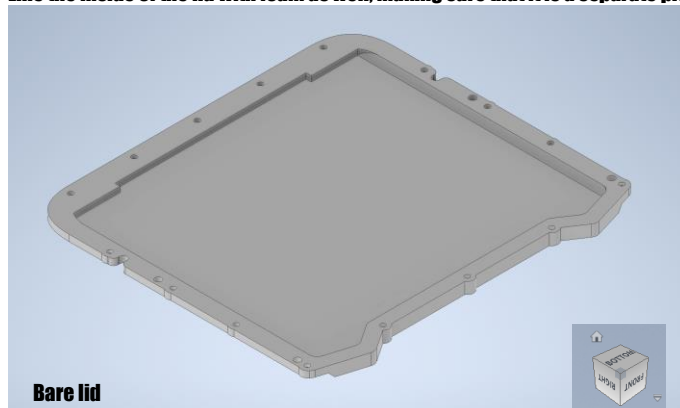


## 2. Lid Preparation

Line the Lids edge with a neoprene foam sheet, the lid itself can be used as a stencil for a knife.

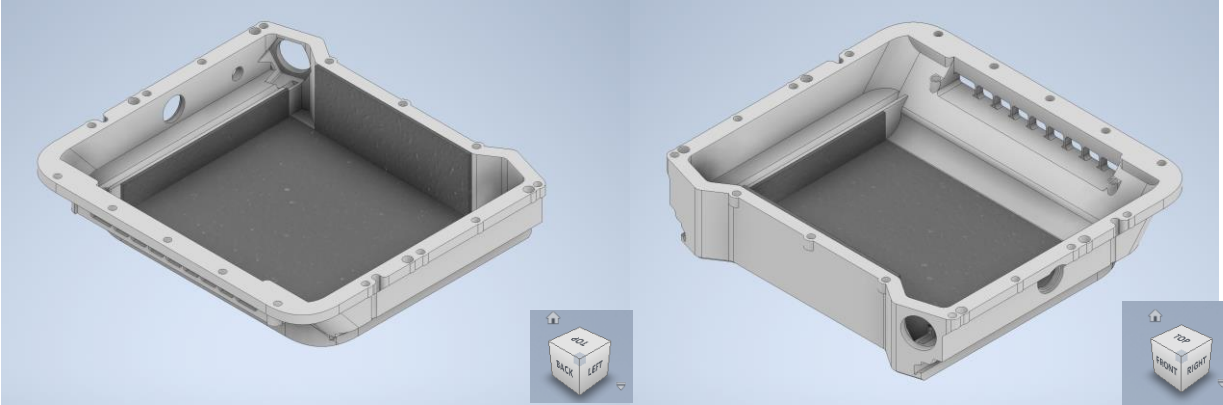
Slowly and lightly drill through each of the lids M3 bolt holes with a 3mm drillbit, and each of the M4 bolt holes with a 4mm drillbit. This cuts around each bolt hole and will prevent the bolts from tearing the foam gasket.

Line the inside of the lid with foam as well, making sure that it is a separate piece from the edge gasket.

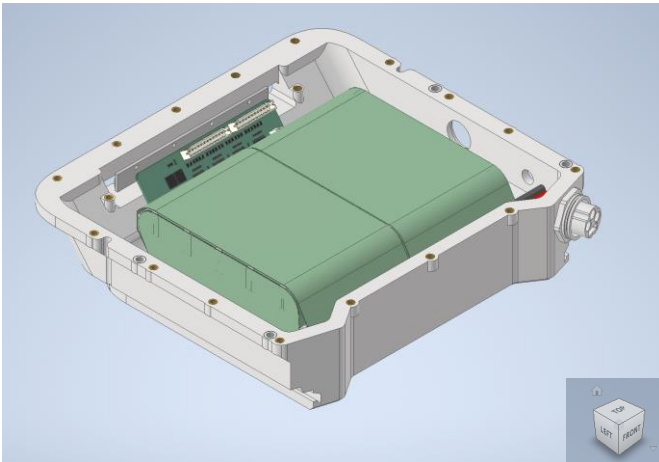


### 3. Battery install

Line the interior of the battery casing with the appropriate foam, which is 2mm neoprene foam assuming the battery from the XR 20S2P 18650 guide is constructed.

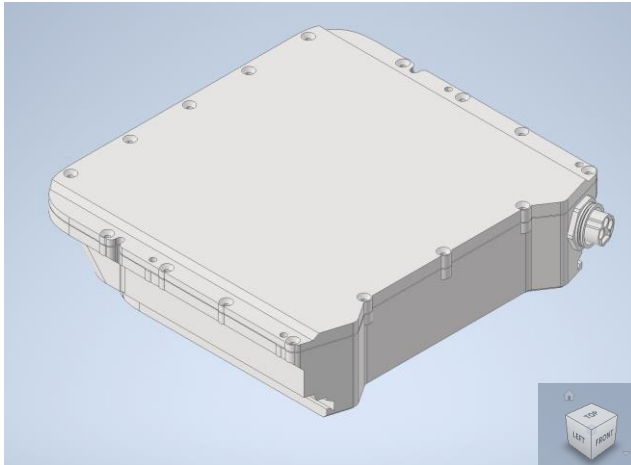


Depending on your intentions, install an LED strip in the window slot along with an appropriate strip holster. Then install your battery management system, cable gland/ VOW Swap plug, battery pack and GX-16 Charging port.



### 4. Final Seal

Bolt the lid to the casing using the M3 Torx bolts, doing so slowly and evenly to spread pressure across the neoprene foam gasket



Optionally waterproof the casing using the Badger waterproofing kit method. At minimum, install the goretex breather patch over the breathe hole. Install your completed battery into your custom onewheel Pint Frame, The VOW Pint Bumper is necessary for this casing.