



# PogodaAI weather station assembly guide

Author: Kamil Gruszczyński

Team: Krasiniak TechWorks

Tools and equipment needed for assembly:

- Philips screwdriver
- Set of M3 and M4 bolts with washers and nuts
- M3 threaded inserts for 3D prints with soldering iron for pressing
- Hot glue
- Cyanoacrylate glue
- Acrylic/plastic transparent pane
- All of the electronics specified in BOM
- 3D printed parts provided in the directory

The electronics guide is in another file in this directory. Look for: *PogodaAI electronics guide*

In order to build your own PogodaAI weather station, follow those steps strictly. Always remember to keep parts sealed while glueing them in. Do not use too short threaded inserts for seamless usage.

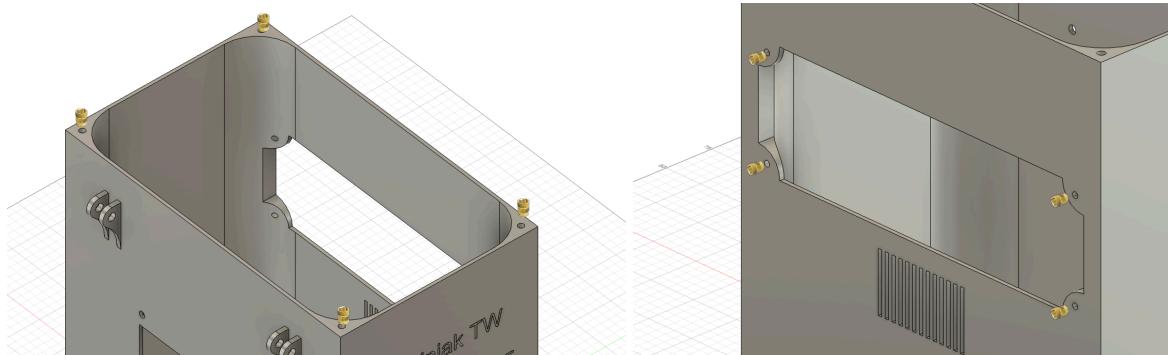
The guide for printing those parts is in another file in this directory. Look for: *PogodaAI printing guide*



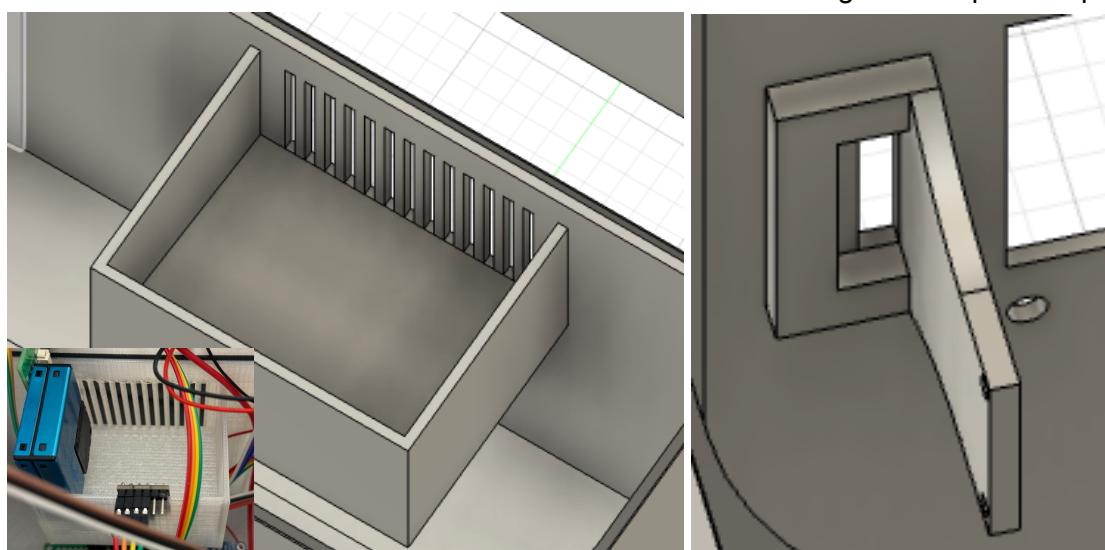
This project has been created for Technikon 2025.

Some of the needed parts have been discounted for us by our sponsor Botland Poland.

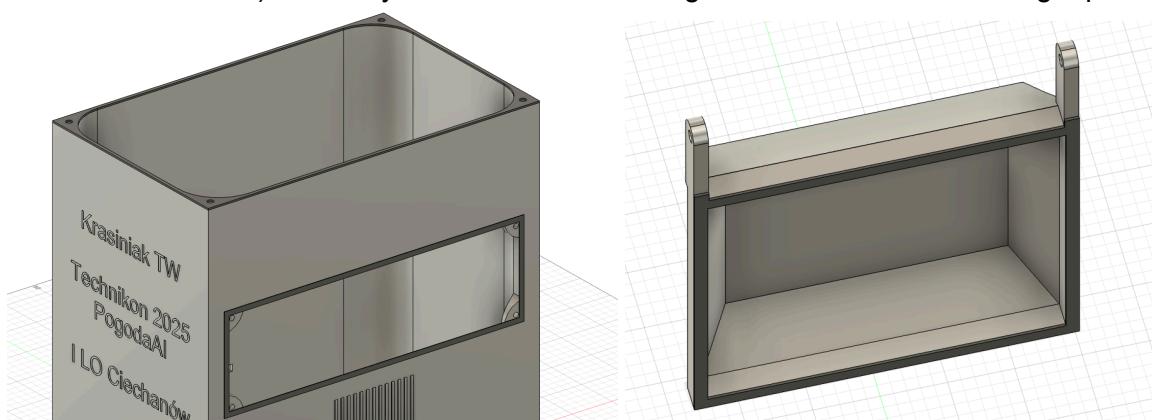
Press M3 threaded inserts into holes on top of the main housing and four of them on the side.



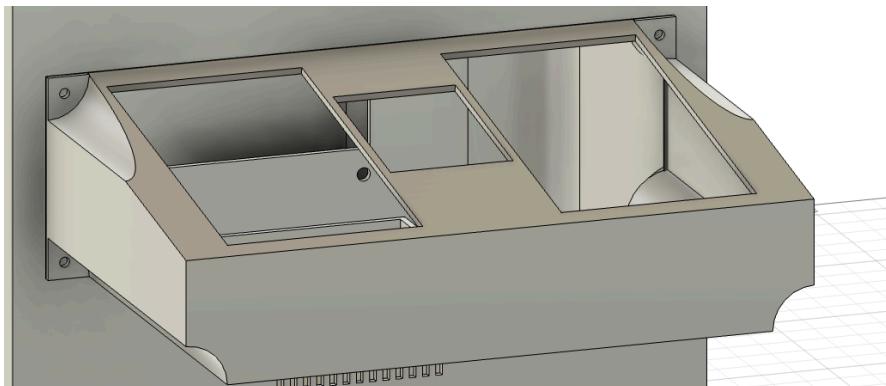
Glue in the SD reader holder and environmental sensor's housings in the specified positions.



It is recommended to glue in TPU seals, although they can be loosely placed (held by bolts with other elements). The only seal that needs to be glued in is the one on the right picture.



Now you should prepare the solar panel's case by glueing them in with hot glue. After that screw this part into the main housing with four M3 screws.



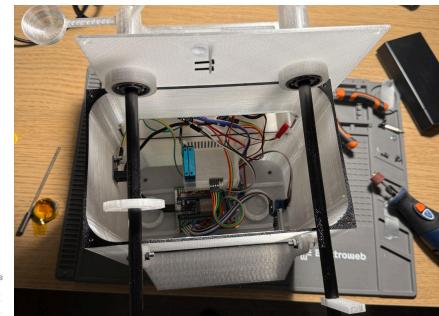
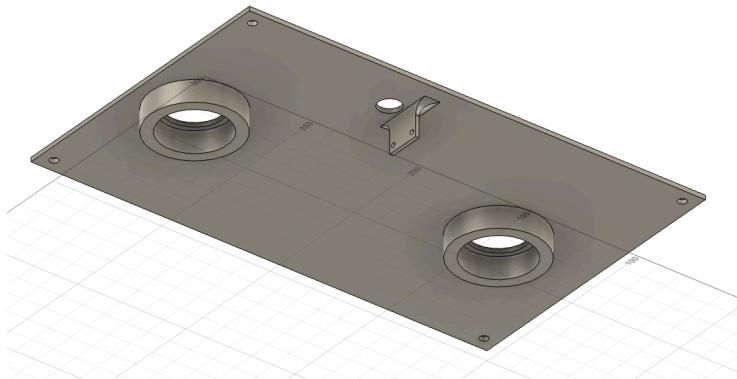
Glue in a raindrop sensor into an additional cover with any type of glue, while paying attention to place glue evenly in order to keep the part sealed. Then glue in the cover to the previously mounted case.



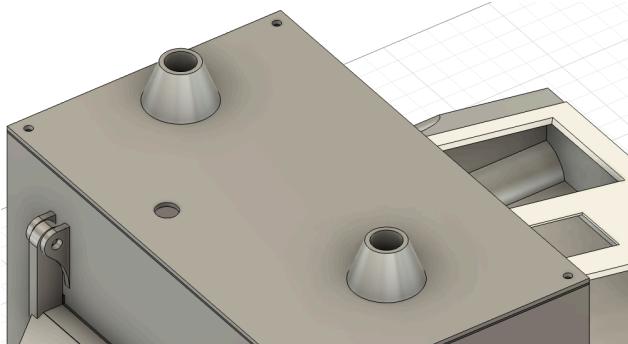
Use two M4 bolts with washers on both sides to mount the keypad and screen cover. Secure those bolts with M4 nuts without using too much force (the part needs to move after tightening)



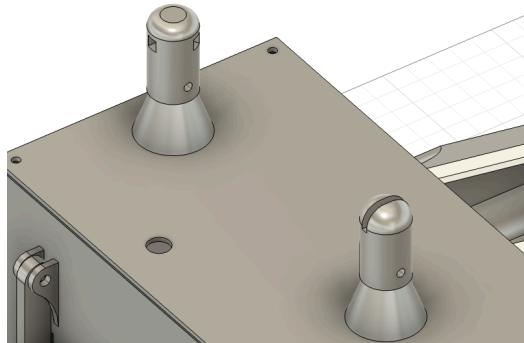
On the bottom part of the top cover force 2 of the specified bearings and glue in a small acrylic/plastic plane covering the small hole. Remember! It needs to be as clear as possible for the light sensor!



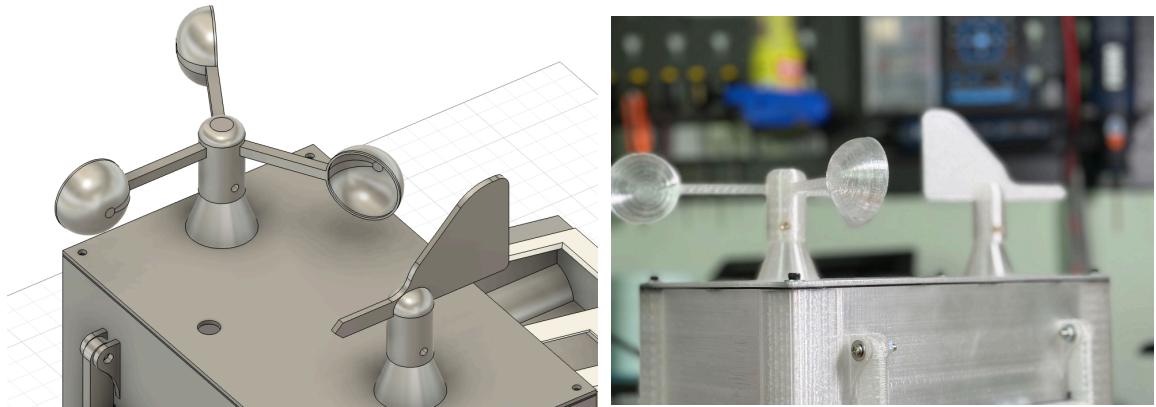
Glue in two funnels on top for rain protection. Be careful! It needs to be as centered as possible.



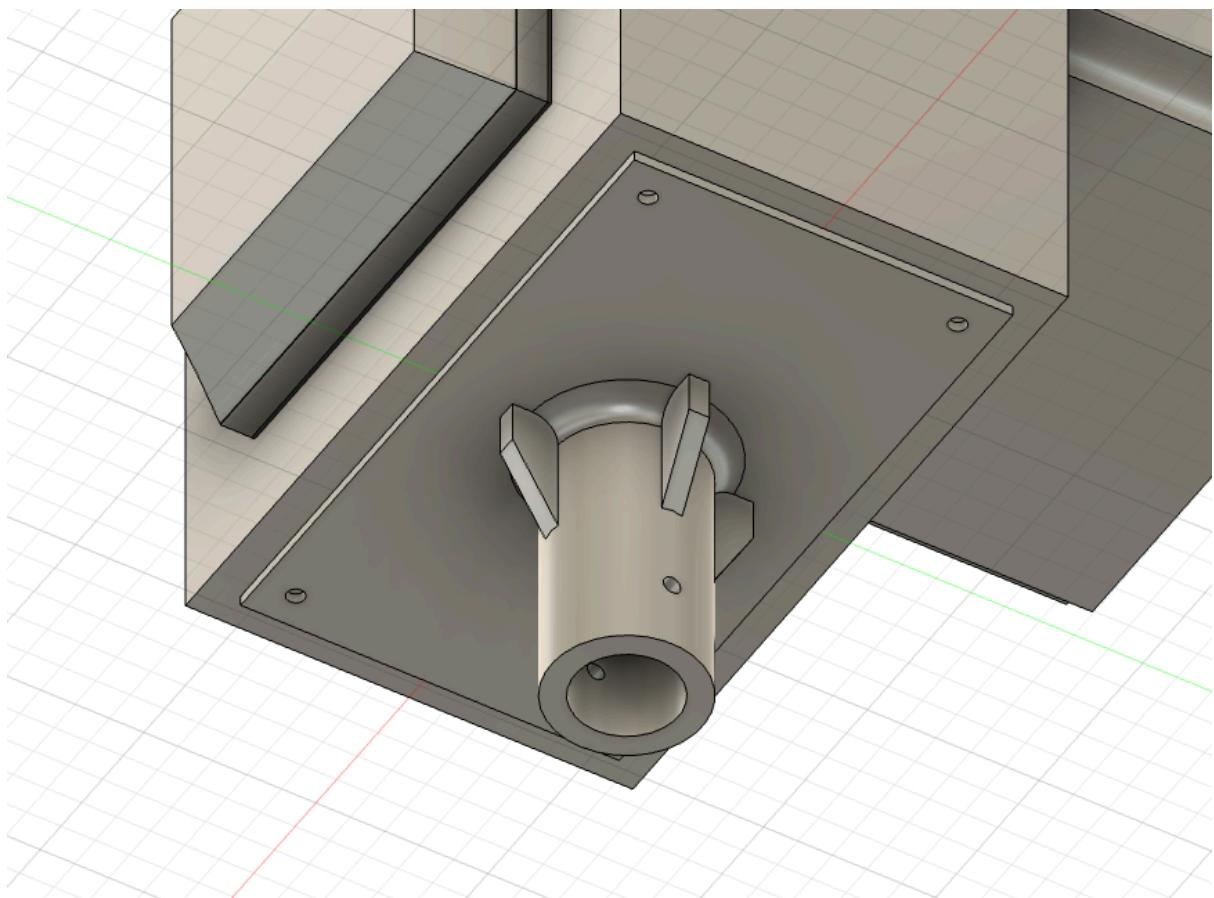
Place carbon rods in the bearings leaving small clearance from the base level. On the top mount both anemometer and wind vane bases. This is a good moment to mount an anemometer wheel and wind vane extension rod (placement of those components is specified in the *Working\_diagrams* folder).



Place anemometer arms into three holes of the base and wind vane arrow on top of its base.



The last part is the base mount. Choose the correct file for the diameter of your target tube. Screw it in with four M4 bolts (with washers and nuts).



In case of any questions contact Krasiniak Techworks team by email: [techworks@krasiniak.pl](mailto:techworks@krasiniak.pl)