# Mach2GTO compass tray assembly guide

C.Y. Tan Nov 8, 2024

#### License

Copyright 2024 C.Y. Tan

This document is licensed under Creative Commons Attribution-ShareAlike 3.0 Unported License. To view a copy of this license, visit <a href="http://creativecommons.org/licenses/by-sa/3.0/">http://creativecommons.org/licenses/by-sa/3.0/</a>

# Assembly

Assembly of the Compass Tray

#### 3D print

The mount attachment, tray and clamping screw are printed using the STL files in the STL directory or separately generated by the user with the source code mach2gto\_compass.scad.



## Assembly

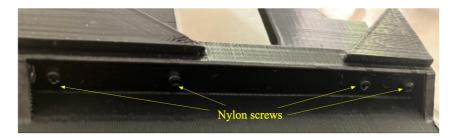
The mount attachment and the tray are attached together by sliding the wedge on the tray into the receiver in the

mount attachment:



The Wedge-receiver combination has quite a strong friction fit and probably do not need glue or screws if the phone or compass are light. Superglue can be used to permanently join these two parts together.

However, I have provided holes in both the mount attachment and the tray. I used 2-56 screws to thread the holes. Nylon screws are then used to affix the two parts together.



Do NOT use steel screws because they are magnetic! Brass or Nylon screws should be used.

### Mounting



As shown in the photo, the compass tray is slid onto the Mach2GTO. The clamping screw is tightened to stop it from moving.

The shape of the mount attachment is such that is perfectly fits into the recess of the Mach2GTO. This fit ensures reproducibility between installs.

Note: I discovered that the counterweight bar is actually magnetic (surprisingly not the counter weights) which affects the compass. So the north alignment with the compass should be done before the counter weight bar is attached to the Mach2GTO.