Aligning Tilt Mechanism

1. REQUIRED PARTS

None

2. INTRODUCTION STEP BY STEP

1. Unattach the plastic covers of the axle (I think you did that already).
2. Attach the battery to power the Trinity. The servo will be powered and align the motor in horizontal position with the motor pod. Do NOT arm or perform preflight check.
3. Take a wrench socket (spanner gap size 8) or thin pliers and unscrew the nuts of both sides. Figure 1 shows the plastic nuts.

Figure 1 – Plastic nut of tilt mechanism

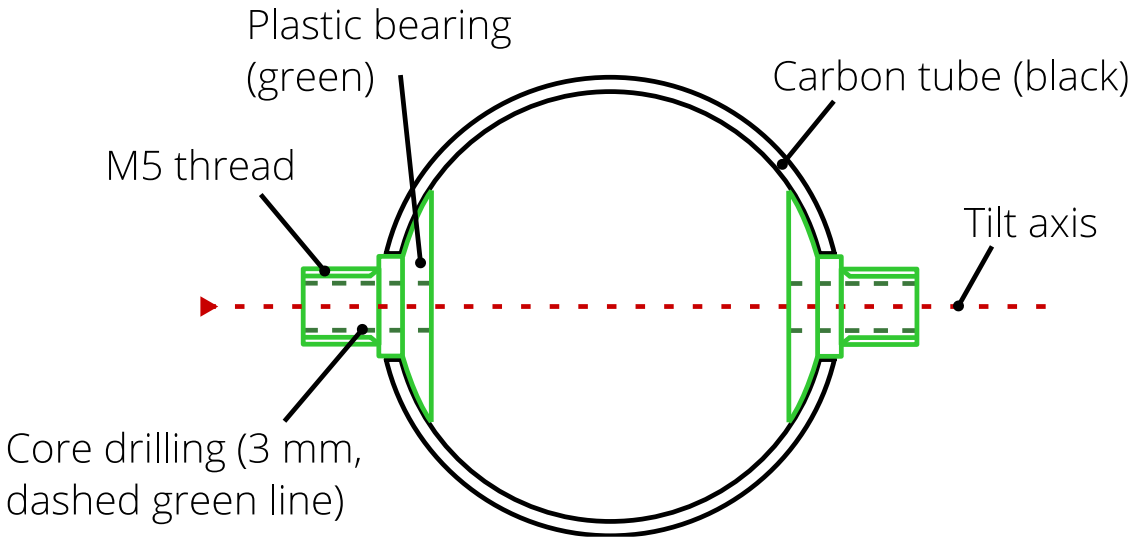

Figure 2 – Tilt mechanism, seen from the front

4. Now take a pencil or screw driver and push the axle out of one of the bearings. If you push it out too far, you will push it out of the toothed wheel, and it will be difficult to get it back in. Just push out of one bearing so the belt is not under tension any more and you can tilt the axle backwards a bit. 2 cm should be enough.
5. Take the motor and move it into horizontal position (in line with the motor pod) so that the toothed wheel skips a tooth (or more, depending on the magnitude of misalignment) on the belt. The motor might need be be moved a bit over its horizontal position in order to get enough force on the belt to snap one tooth.
6. Stretch the belt again so you can insert the axle back into the bearing.
7. Tighten the nuts (by hand is sufficient, or you can use pliers again. You dont need to tighten them much).
8. Put some superglue on the OUTSIDE of the nuts after screwing them back on. Make sure there is no glue on the thread or you will never be able to loosen the nut again. If you have no superglue, some normal glue will do, too. You can even use nail polish if you do not have any glue.
9. Do a preflight check and check if the motors are aligned right.
10. If so, you can arm and check if the motors are tilted upwards correctly. KEEP YOUR DISTANCE WHEN ARMING!
11. Put some superglue on the seam of the foam where the cover will be placed upon and attach the covers on the holes to cover the nuts.