

Instructions for upgrading your 828 to Novo Duo

Your upgrade kit should include the following pieces:

- 1 x piece of module incl. display
- 1 x RPM sensor incl. screw
- 1 x decal (paper) for attachment of magnets
- 6 x magnets
- 2 x thick plastic mounts
- 8 x thin plastic mounts
- 1 x black strap for potentiometer incl. screw
- 1 x potentiometer incl. cable
- 1 x power cable



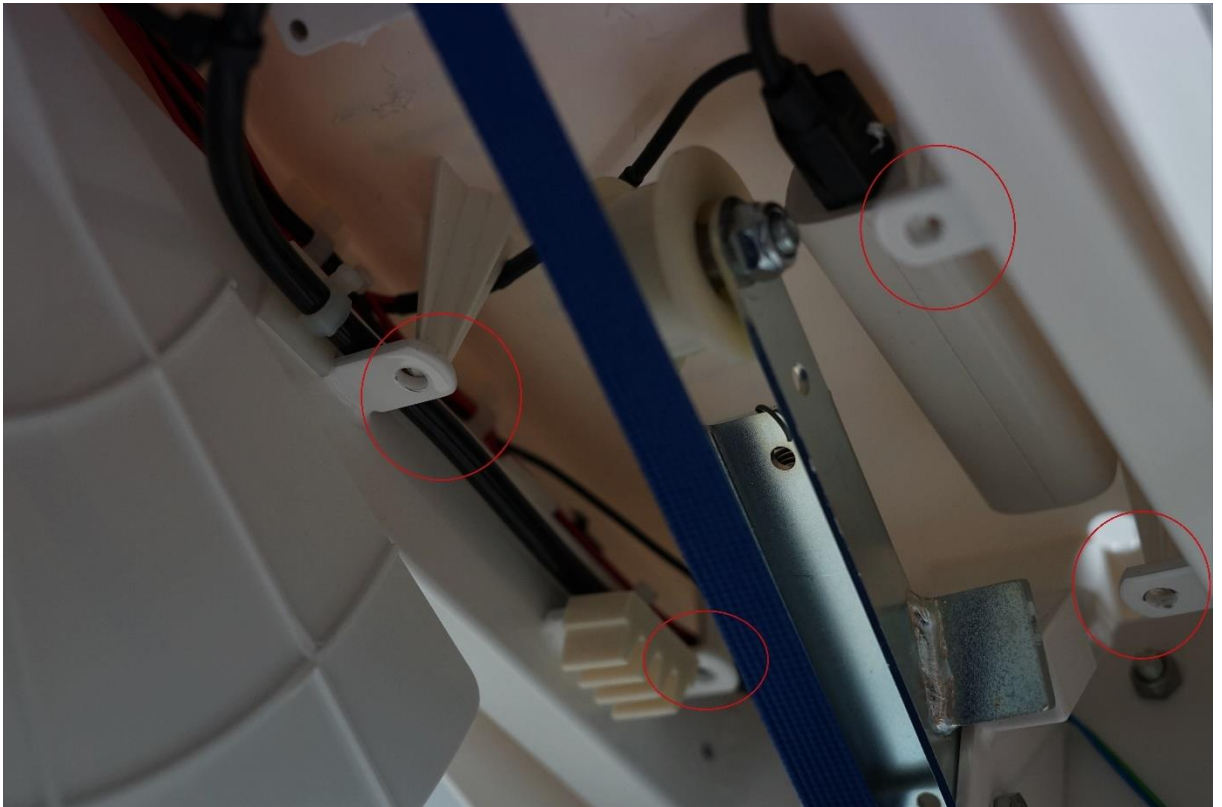
You will need these tools:

- Torx TX25 screwdriver
- Wrench (block key) 2 x 15mm
- Wrench (block key) 1 x 8mm
- Cross screwdriver
- Hex key (for adjusting the potentiometer) 1.5 mm
- Nippers or a sharp knife
- Glue (super strong)
- Cable ties

1. Remove the side covers from the bike by loose the screws around the cover.



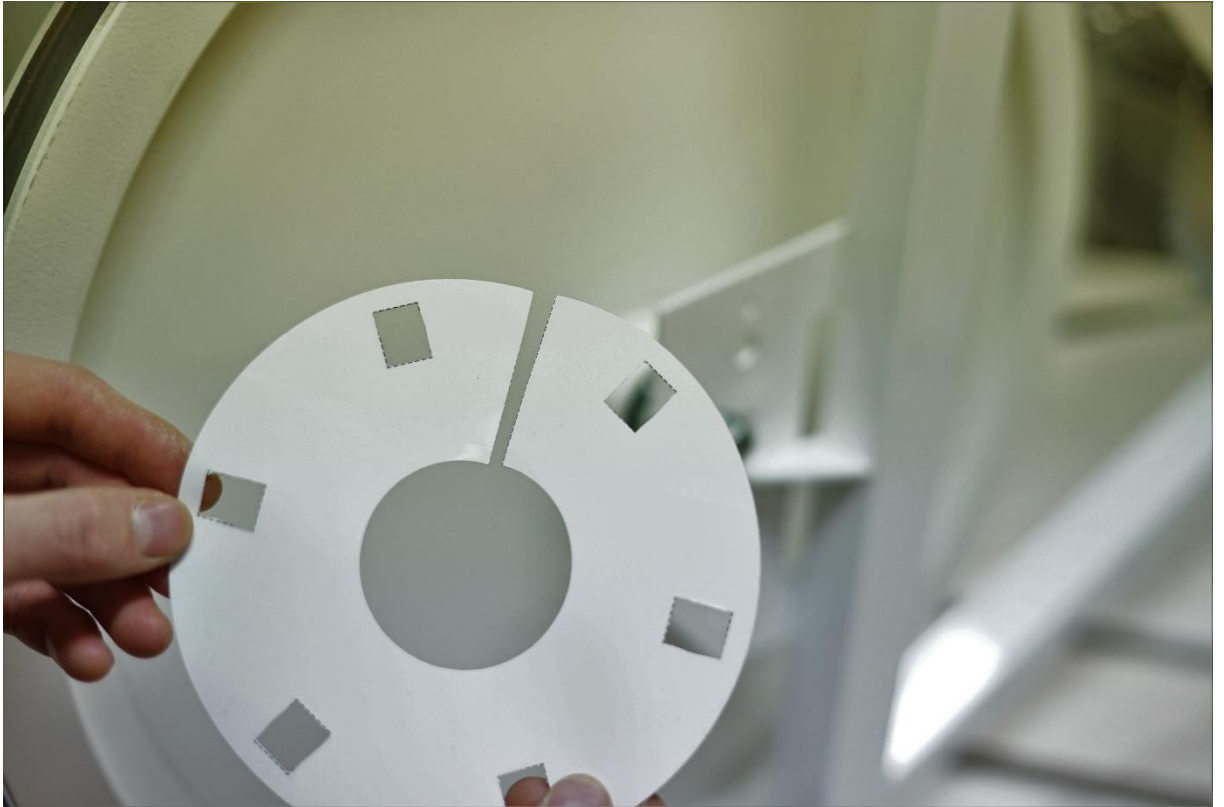
Remove the module in front by loosen the 4 screws under it.



The bike should look like this when you are done.



2. Cut holes in the decal.

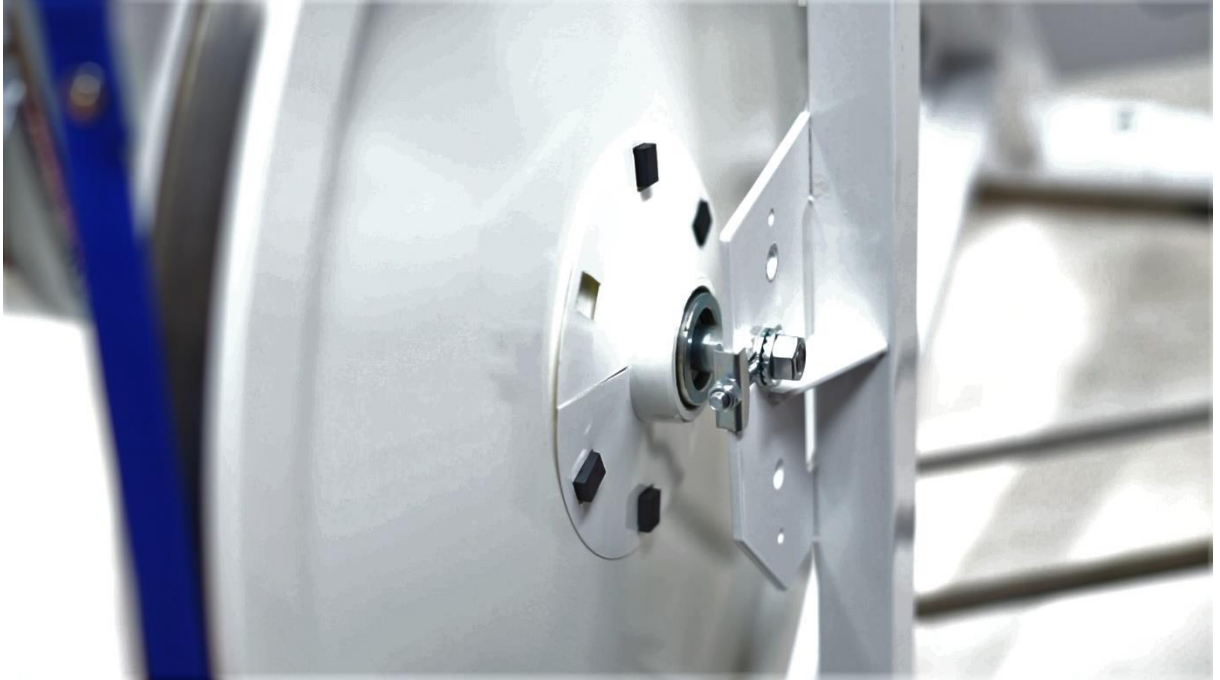


Super glue.



Attach the decal against the flywheel.

Then use the glue at the magnets and place them where the holes are cut at the decal (so the magnets are attached directly on the flywheel).



Then remove the decal and the magnets will fit fine on the flywheel.



3. Attach the RPM-sensor to the frame. Put the screw (to the RPM-sensor) into the lower and bigger hole.



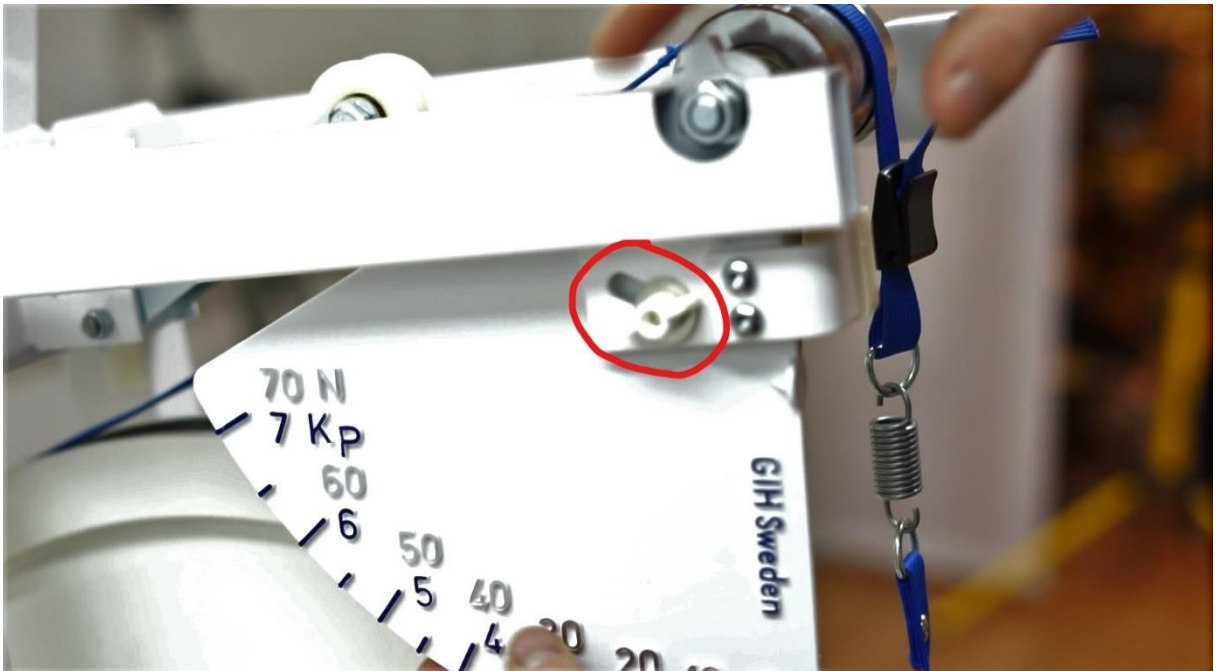
To attach it, use the TORX on the inside and the 8mm wrench on the outside.
(Put the washer on the outside of the fork as seen in the picture).



4. Loosen the large thread with 2 x 15 mm wrenches.



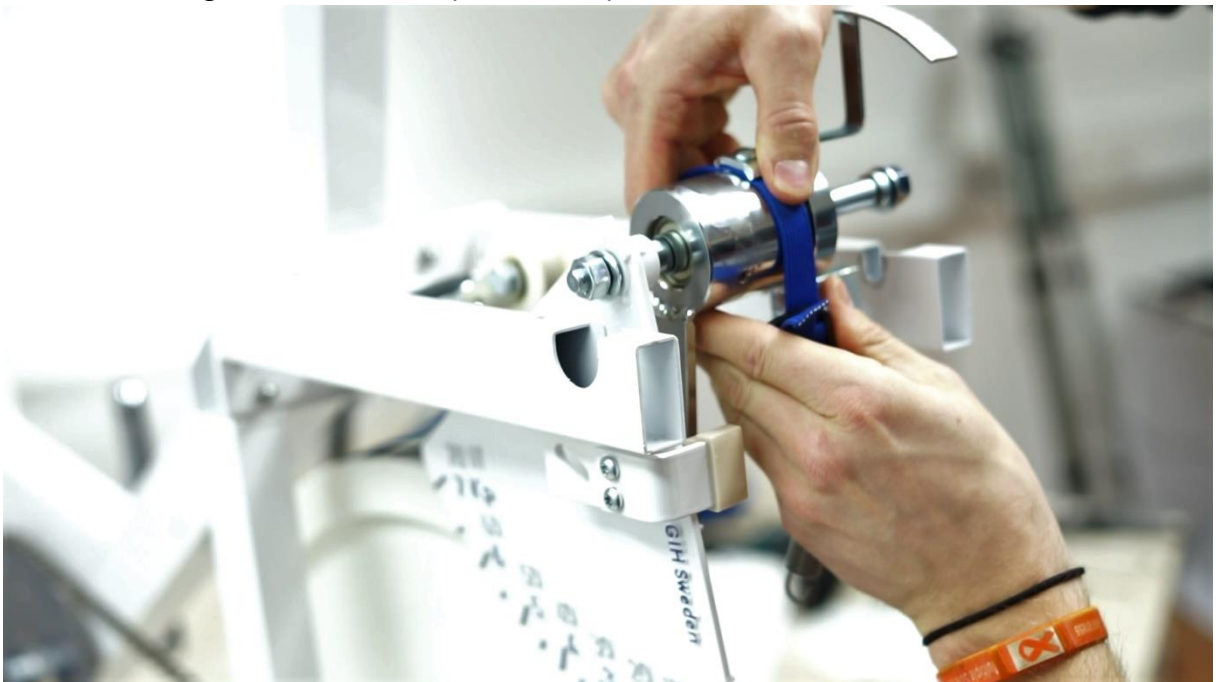
Loosen the screw that holds the kilopond scale.



5. Remove the blue resistance band by open the black holder and then remove it from.



Remove the large thread with the pendulum system.



Remove the kilopond scale (metal part), you don't need this anymore.



6. Remove the screw that holds the blue resistance band on place.



The large thread should look like this:



7. Attach some glue at the metal cylinder (for the black strap to the potentiometer)



Attach the black strap for the potentiometer. Turn it so the hole matches.



Add the screw and tighten it (not fully yet).



Add the washer and put in under the black strap.



Then tighten the screw at the black strap.



Put back the blue resistance band and tighten the screw.



8. Remove the screw-nut and the kilopond scale.



9. Attach the pontentiometer.



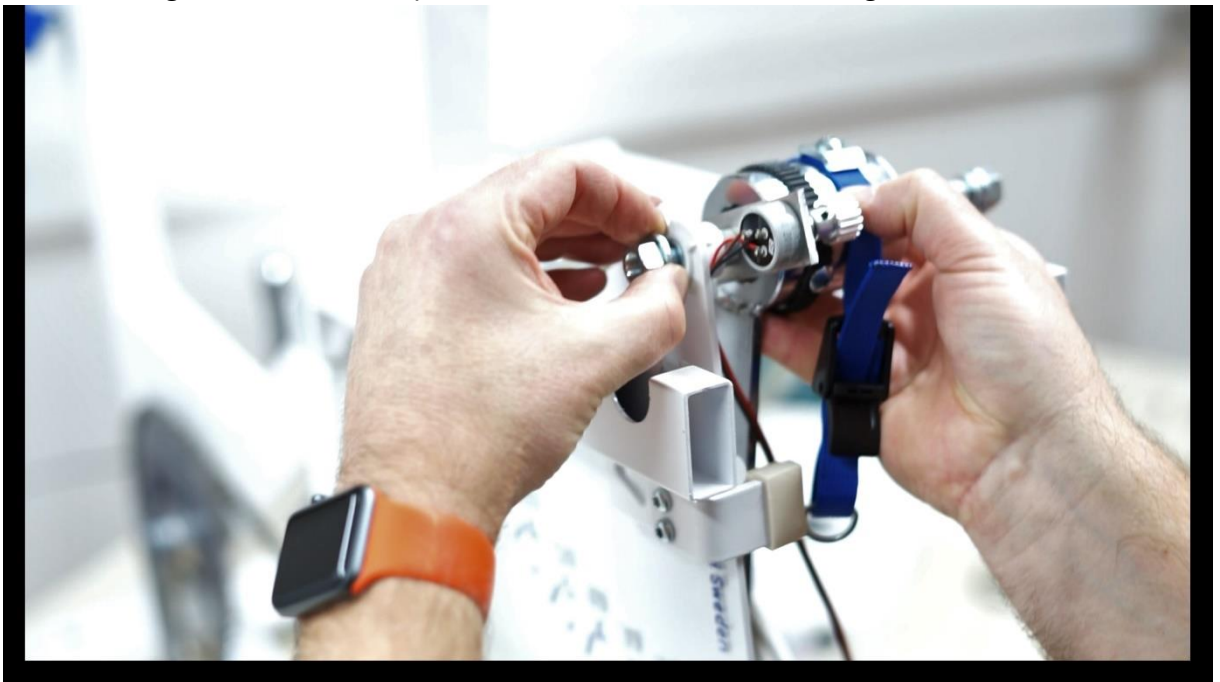
Attach the potentiometer so that the metal gear fits into the black gear strap.



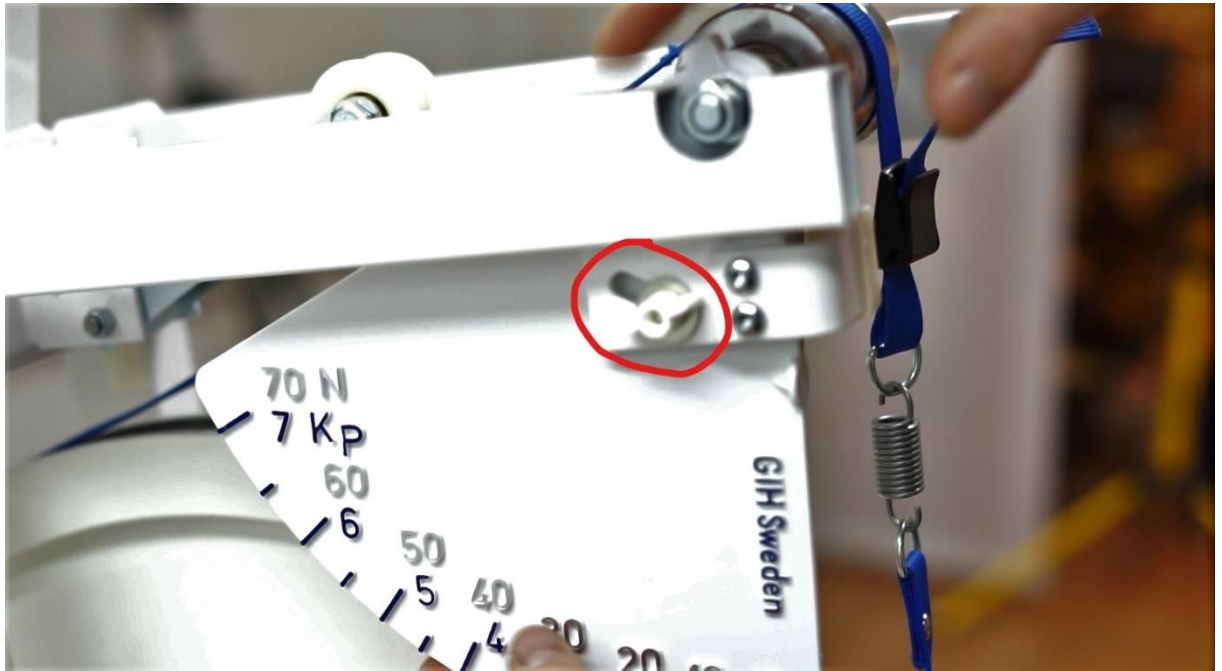
Put back the kilopond scale and the screw-nut on to the large thread.



10. Place the large thread with the pendulum back at the bike, then tighten it.

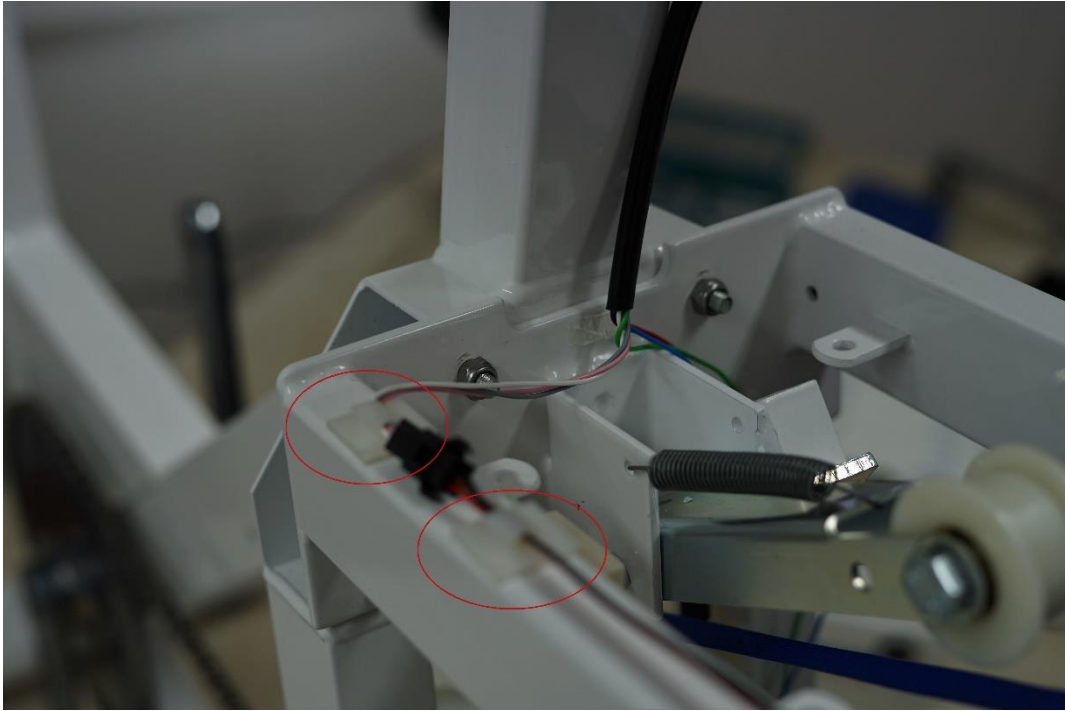


Attach the kilopond scale back



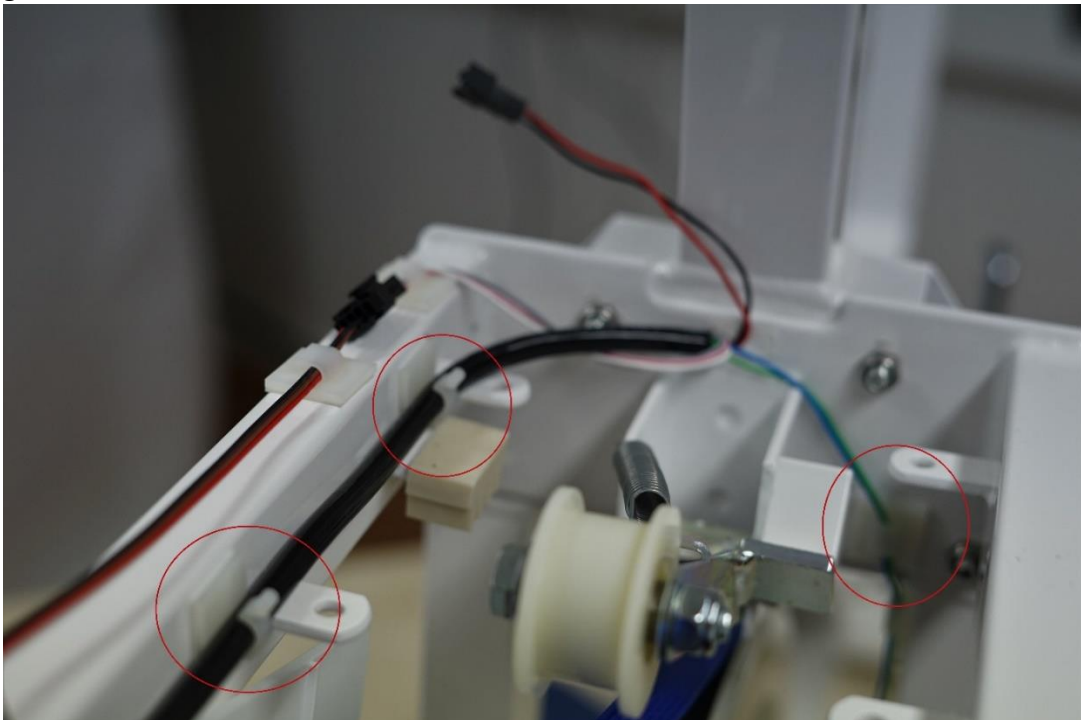
11. Mounting the module in front.

Use 2 x thin plastic mounts and put them on the top of the frame (see picture). Put together the black/red potentiometer cable with the white/pink/grey cable from the power cable.



-Use the 2 x thick plastic mounts and add them at the inside of the frame (the 2 marked left on the picture). This will hold the thick power cable that will get plugged in to the Novo Duo.

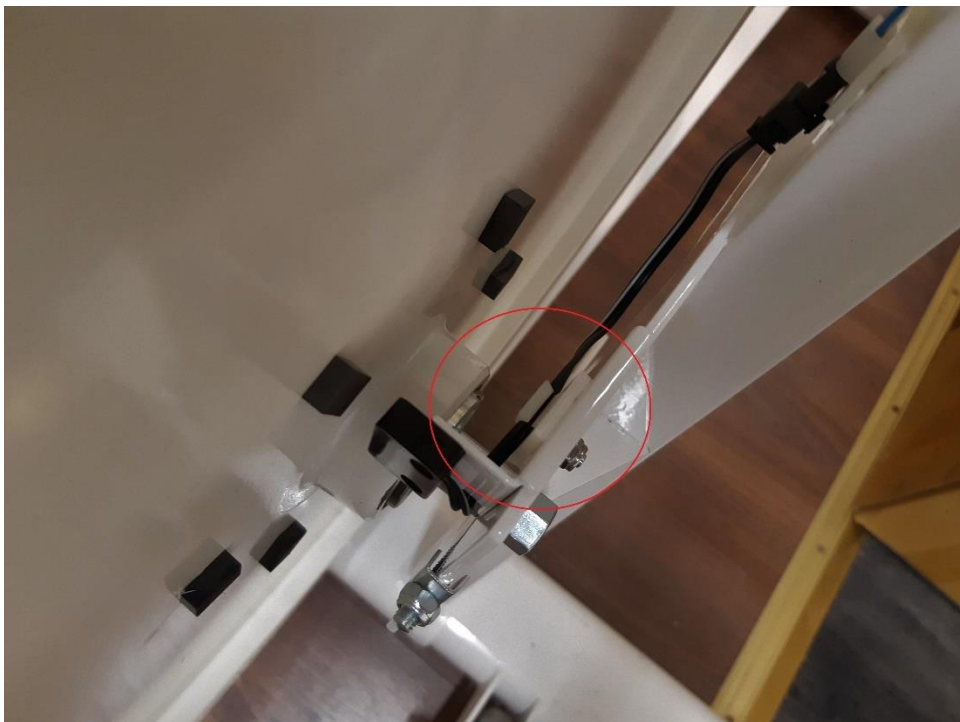
-Also use 1 x thin plastic mount and add it like the picture shows (to the right) for the green/blue RPM cable. This cable will continue down the fork to the RPM sensor.



Use 4 x thin plastic mounts to the inside of the fork (to hold the green/blue RMP sensor cable).



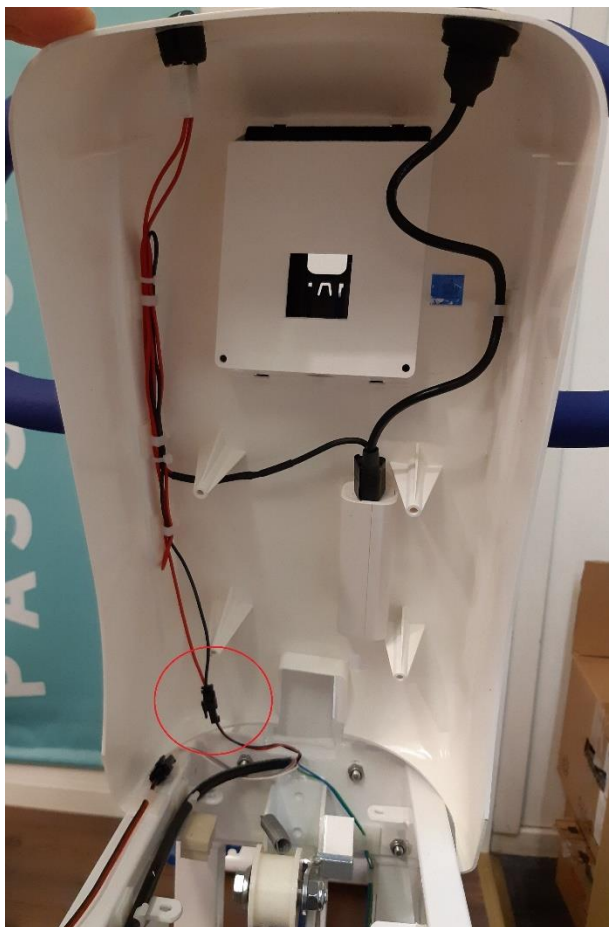
Then use 1 x thin plastic mount at the back of the RPM sensor to hold the cable there as well.



12. Take the module and remove the Novo Duo display from it.



13. Turn the module up side down and attach the red/black small cable to the red/black cable from the Power bank.



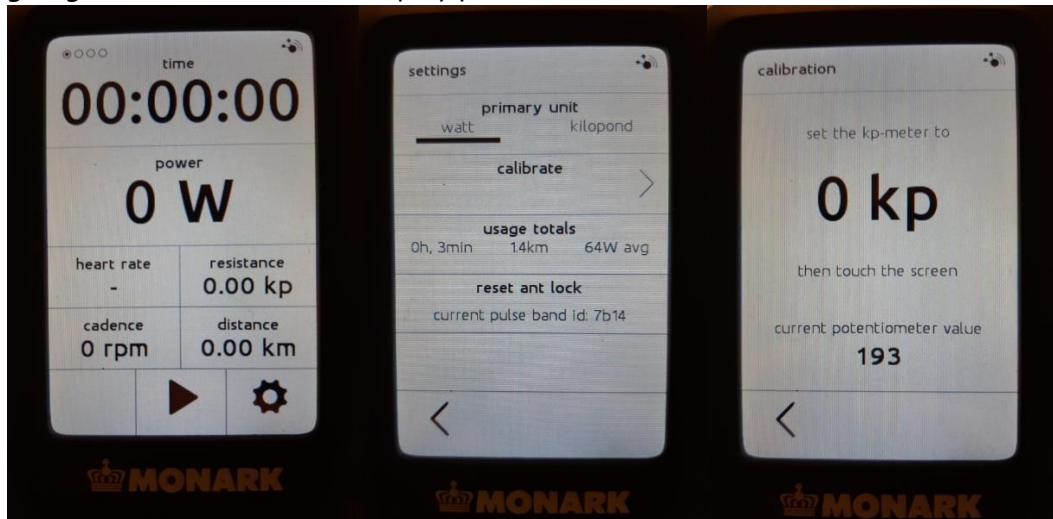
14. Insert the power source cable to the bike (the cable that will charge the power bank)



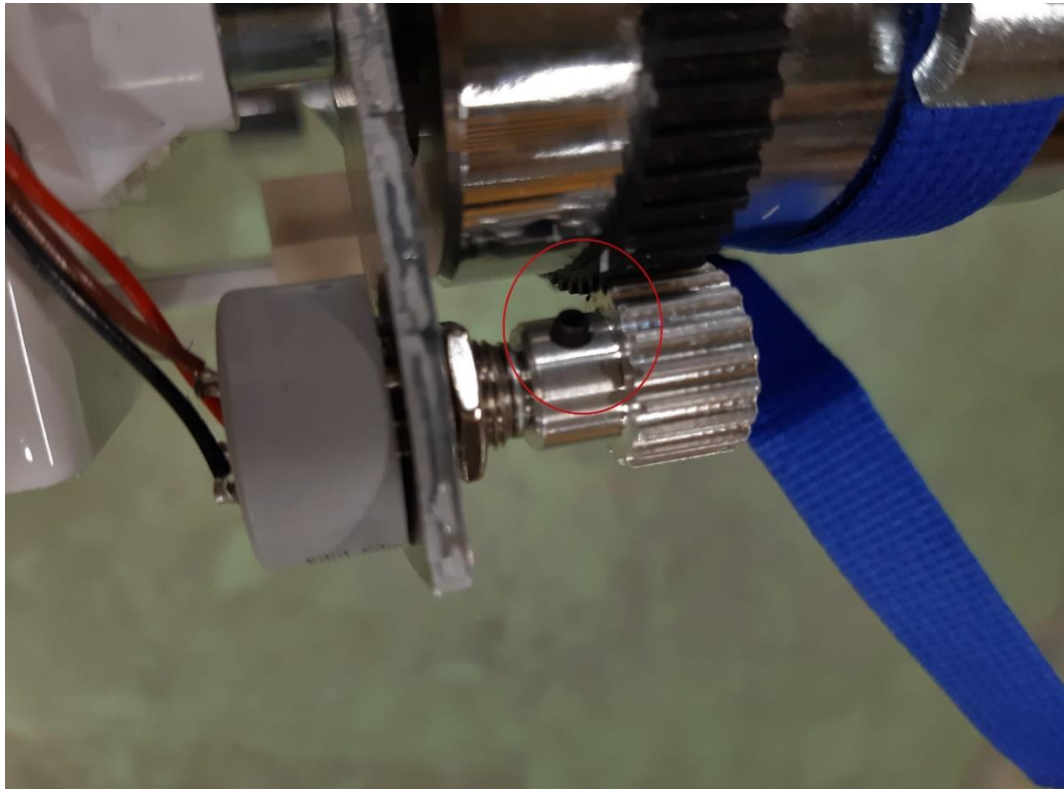
15. Before mounting the module with the Novo Duo you need to make sure the potentiometer value is correct. Put the power cable into the novo Duo display and have the bike at the position you are going to use it (no leaning etc).



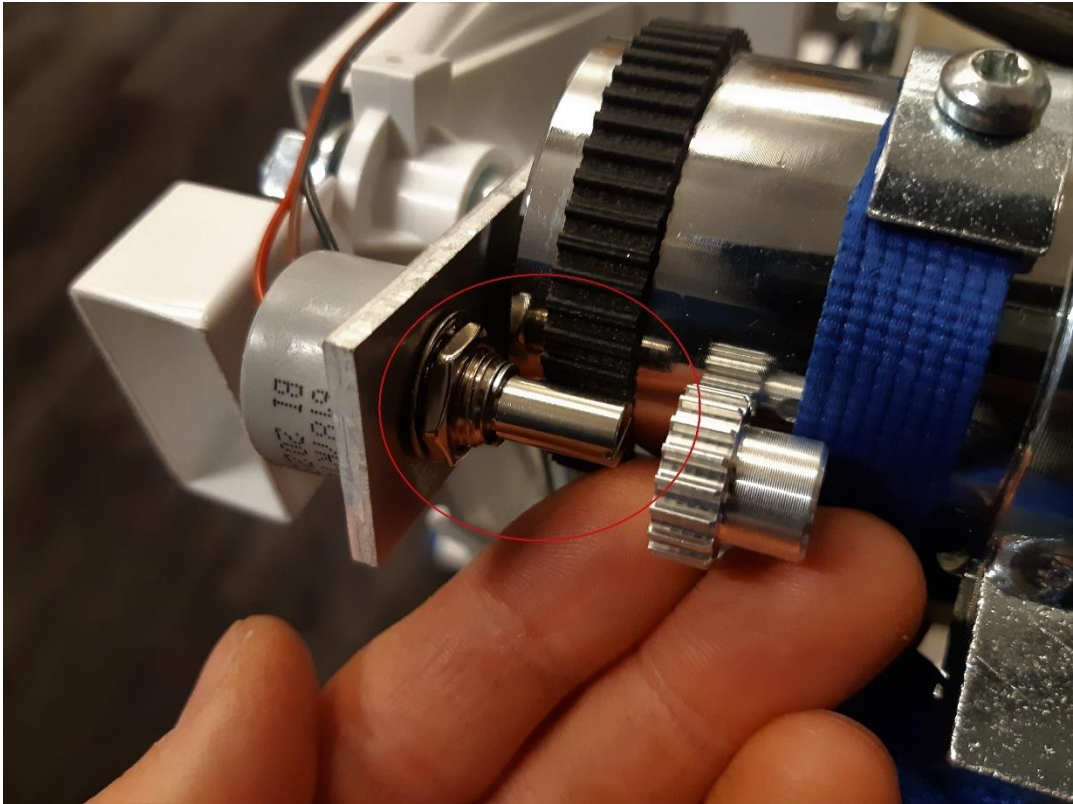
16. Go to settings in the right corner of the display, then press "calibrate". Now you are going to set the Novo Duo display potentiometer value to 200.



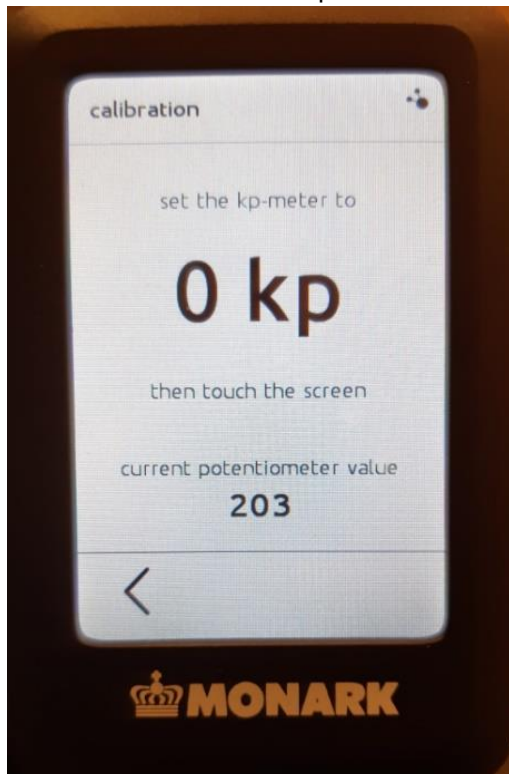
17. Remove the little screw from the potentiometer (with a small hex key).



Adjust the glossy part so that the Novo Duo display shows 200 as a value (still at 0 kP).



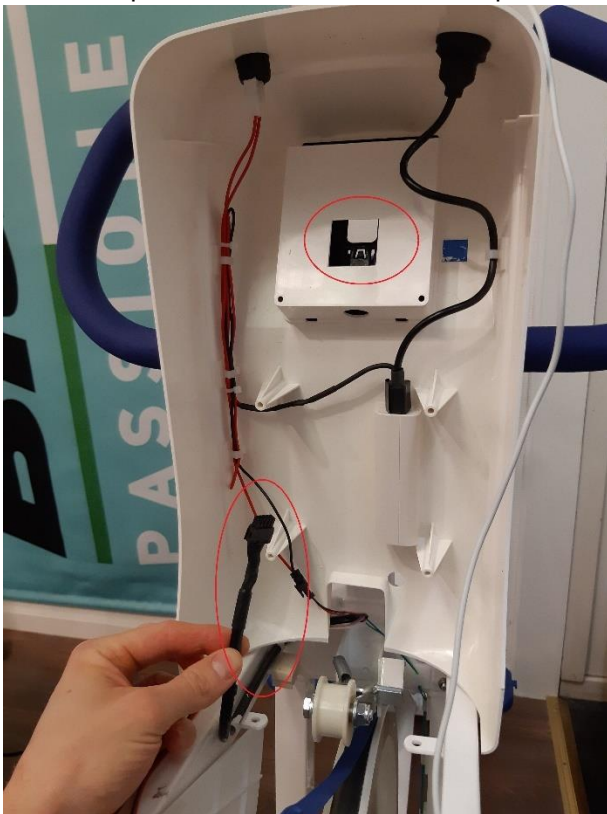
You are done when the potentiometer value says 200 (+ - 10%).



18. Remove the power cable from the Novo Duo and put the display aside.



19. Put the power cable through the holes in the module so that the cable sticks through the black plastic cover (as seen in the picture



20. Put the module so it fits the frame of the bike.

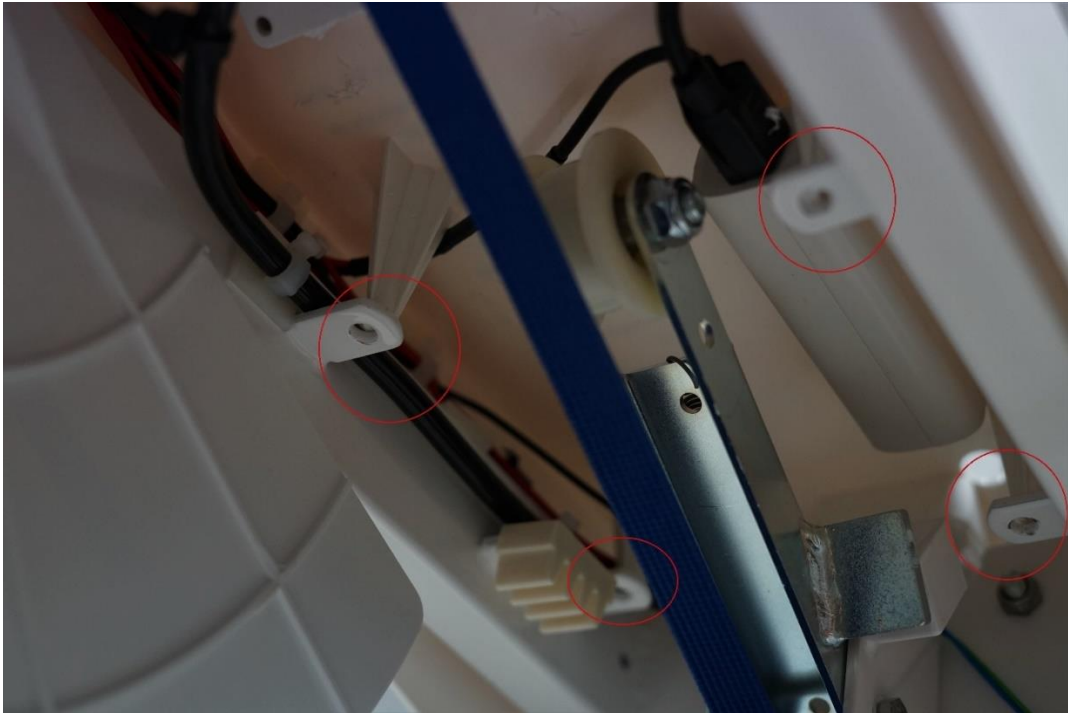


Insert the power cable into the Novo Duo and then attach the display to the black plastic cover



21. Mount the module back with the 4 screws at the underside.

→ Make sure that all cables do fit good, and that no cables are loose and can get stuck in the flywheel.



22. Make sure that the kP-scale at the bike shows 0 kP. The scale can be adjusted.



23. Now, start the bike and go to settings and then calibrate. Now you want to perform a manually calibration at the 2, 4 and 6 kP respectively.
- a) This is done by holding the pendulum at the 0 kP then touch the screen.
 - b) Then the display will show 2 kP, move the pendulum up to the 2 kP and then touch the screen again.
 - c) Repeat the same procedure for the 4 and 6 kP with the pendulum at these numbers.



24. When the bike is calibrated you should mount back the side covers and then the bike will be ready for your ride .



25. ***Some extra information regarding the ANT+ and BLE***

The ANT+ and BLE function does not have a menu in the Novo Duo. The display will search for external devices by itself and the external device will receive a signal and will show a connect to the Novo Duo.