

## Z Screw cleaning

After a year of use my first UMO+ Z motor started to look quite ugly. I did keep it clean using a toothbrush with grease, but there's so much particles in the air on a house with a dog and a cat, that the bottom part of the Z screw started to look quite ugly that I thought of a easy method to fully clean it with '3-en-uno' (or WD-40) without having to protect the inside of the printer. So I needed to take the motor out without making too much disassembly.



So lets do this...

### **Step 1.**

Of course, first things first. Turn off the printer.

Rotate the printer 90degrees so you have access to the bottom of the printer. Remember to secure the Ulticontroller on a safe position so it doesn't fall.

Unplug the power cable. Take out the wood cover of your UMO+ board (or anything you need to access the Z motor cable) and unplug it from the Ultimaker board.

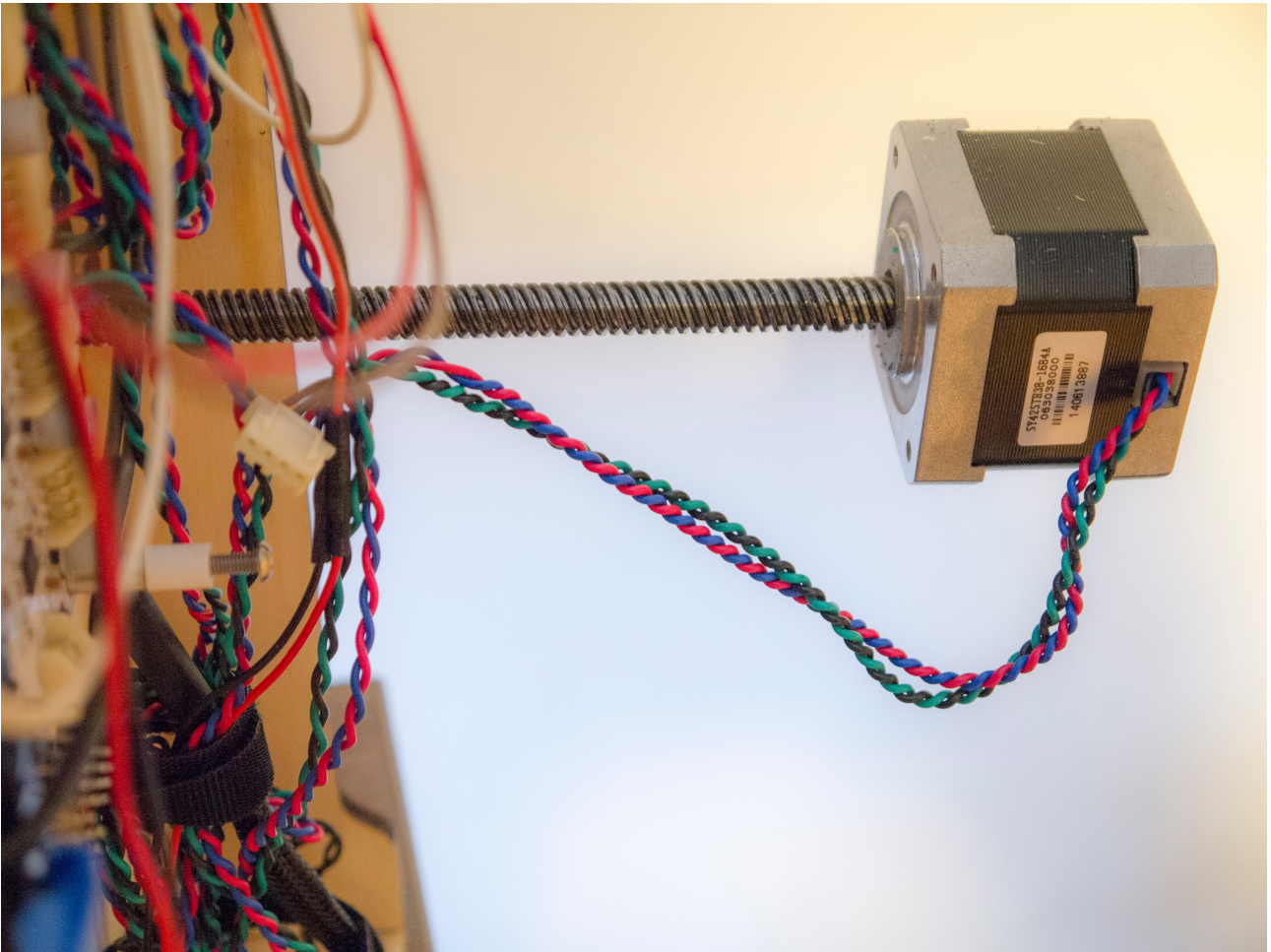


### **Step 2.**

Unscrew the x4 bottom m3 screws that hold the Z motor in place. Don't worry the bed won't fall on you (at least it didn't to me!).



### Step 3.



Take the motor out. This part, even with the x4 screws out. With the bed totally down, you can manually rotate the tip of the long screw to take out the motor

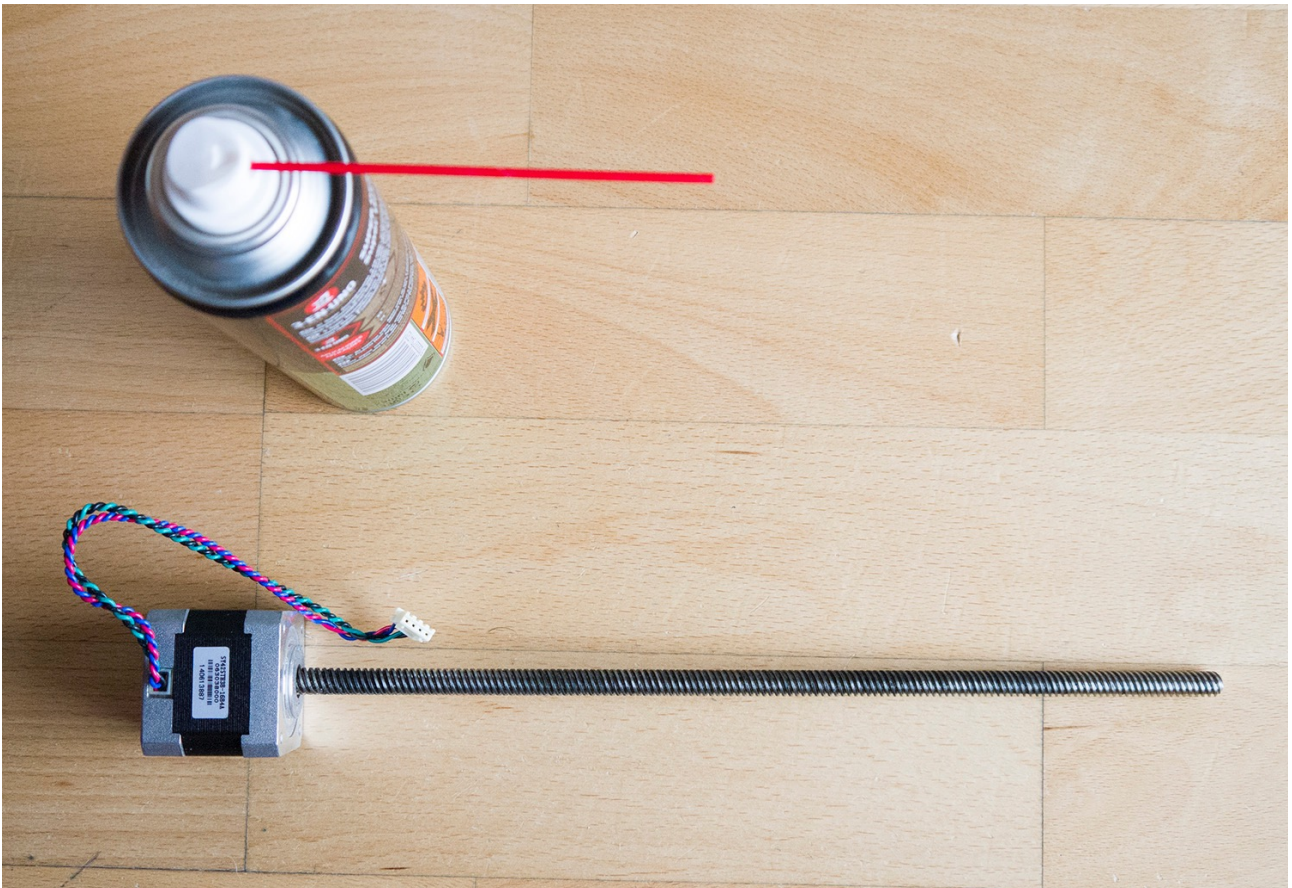
Be careful so the Z long screw doesn't suffer or bend.

#### **Step 3.1 - Bonus step - No need for this guide**

Take out the Z NUT from the bed (taking out the wood cover etc) and Clean it with WD-40. When dry apply some grease inside.

**Step 4.**

Now that the motor it's out, get your 3-en-uno or WD-40





### Step 5.

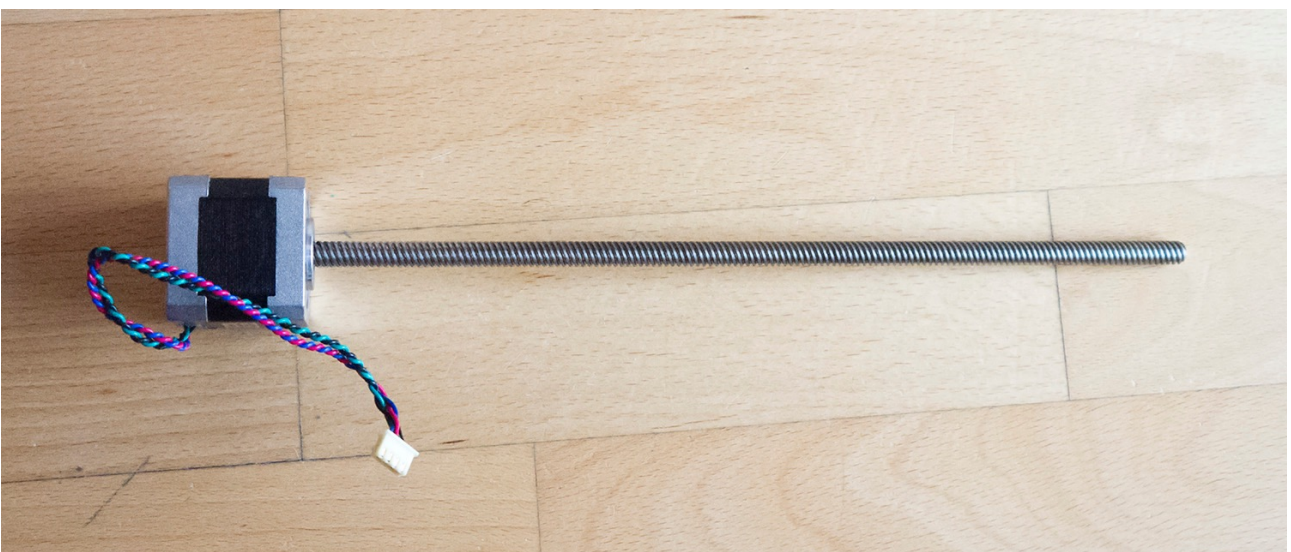
Move to an area where you can safely spray this. I did it on my print room with a air mask (asthma and sprays doesn't mix). Now while holding it upside-down, spray gently until you see a perfectly clean z screw. You will need to place it somewhere on this position until it's totally dry. This kind of sprays dry quite fast (at least my 3-en-uno did). You don't want liquids getting inside the z motor. Anyhow worked like a charm.



### Step 6. Reassembly.

Insert the Z screw (remember that it should be dry). You can use this previous moment to apply a good Green Lube. The best way to apply it without using your fingers it's using a clean toothbrush, specially the cheap ones that are very soft.

Connect the motor to the board. Place the wood cover (Umo+) and put your printer on a normal position.



Once the Z it's all 'in'. Move to the x4 m3 screws that you did unscrew at the beginning and screw them good enough but don't screw them 'tight'

**Step 7. This might not be necessary but I did it anyway**

Now, do you remember that when you assemble the Z bed and you screw the bearings one by one and push up/down the bed? Ok this time we will do the same but with this x4 m3 screws that hold the Z.

You did screw them just 'enough' right? Ok then, Screw one for good. Then holding the bed from the bottom push it up/down 5 times. Then screw the next, and so and so with the x4 screws.

And done. Now you have your Z as much clean as possible.