



Thank you for purchasing a Slotting Plus product.

Remember that when press in a pinion, it must enter with some resistance, and this entire process must be carried out with the logical strength of your hands and fingers.

A simple and clear example is the Nylon pinions. They are faced to the axle and then pressed on to a flat surface to finish entering it in the axle. The pressure that these exert on the axle is very little, compared to a metallic pinions, but enough so that it does not come loose and its performance is adequate. (Note 1)

**-NEVER-** use tools to pry the screw if the pinion fits very hard. If with the -logical- strength of your fingers you are not able to turn the screw, this only means that the pinion -the hole- has been manufactured defectively and/or inadequately and without respecting both tolerances between the hole and the axle.

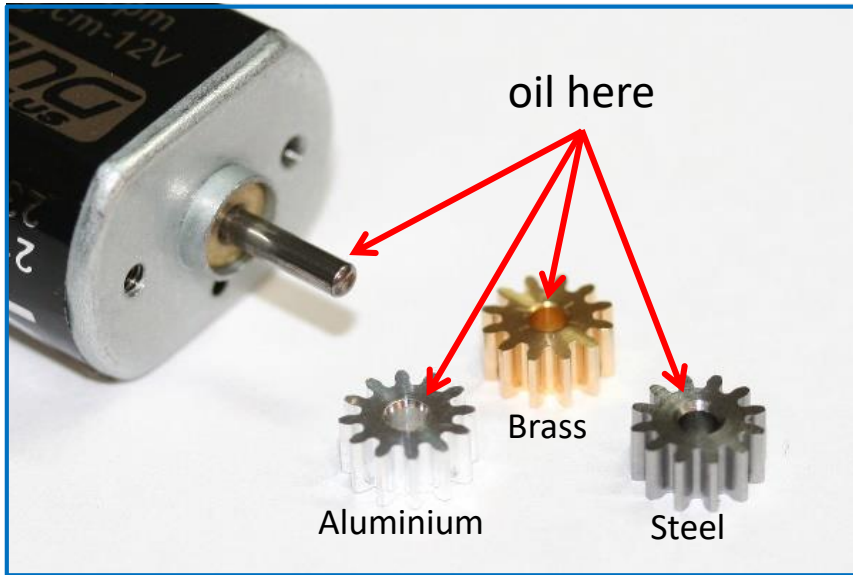
**Remember:** Nothing in the Slot requires extreme force.

If you insist on applying excessive force, you may fold the motor axle causing it to become unusable. Also, as a consequence of excessive force, you can damage the tool itself, and quite possibly later it will be very difficult to remove the pinion or you will have to break it.

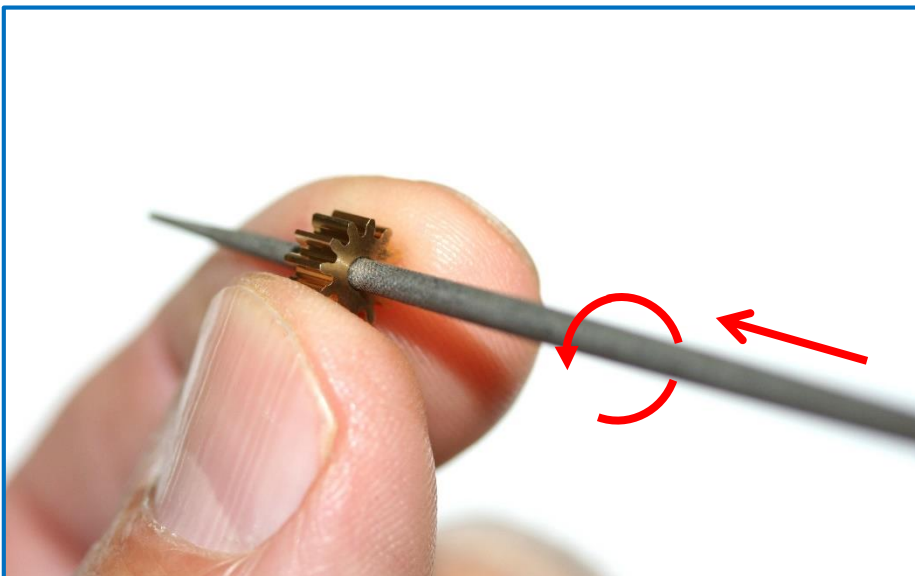
If you encounter this problem, the best and smartest thing to do it's not to insist and remove the sprocket right away. The more you press it, worse it will be.

Next we provide you with two simple and easy tricks to be able to solve it and profit the pinion.

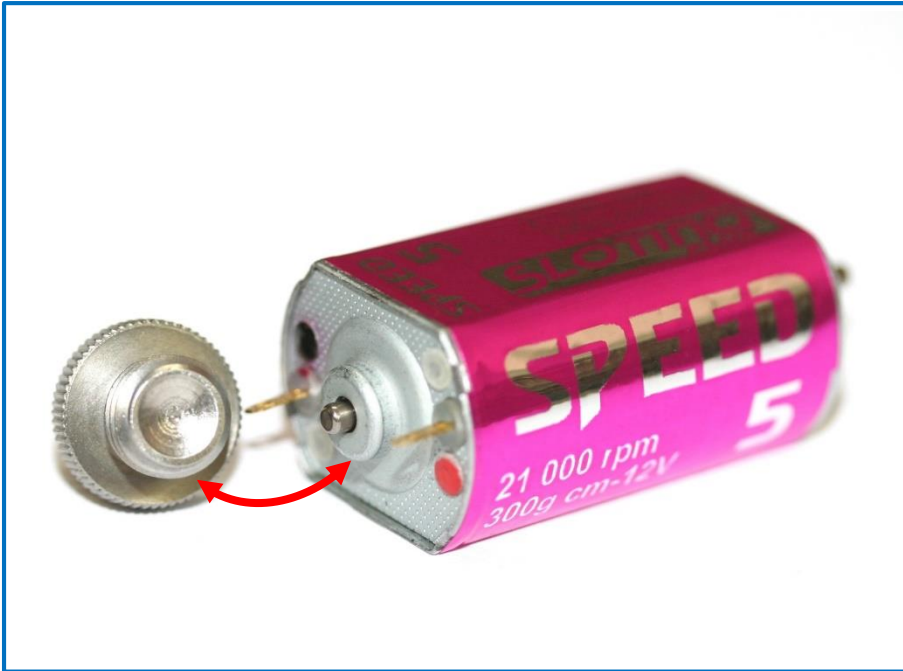
Note 1 - As long as a previously used pinion is not used, the pinion is in good condition, the motor, and therefore the axle, overheat or the transmission with the crown is very forced.



Put a drop of oil where indicated. This simple trick can be used on all pinions and, especially, on Aluminum ones. On some occasions, if the pinion does not go straight, the Steel of the motor axle scrape the Aluminum, giving off small shavings that makes nailing even more difficult. On the Steel pinions, unfortunately the hardest, is always highly recommended to put oil.

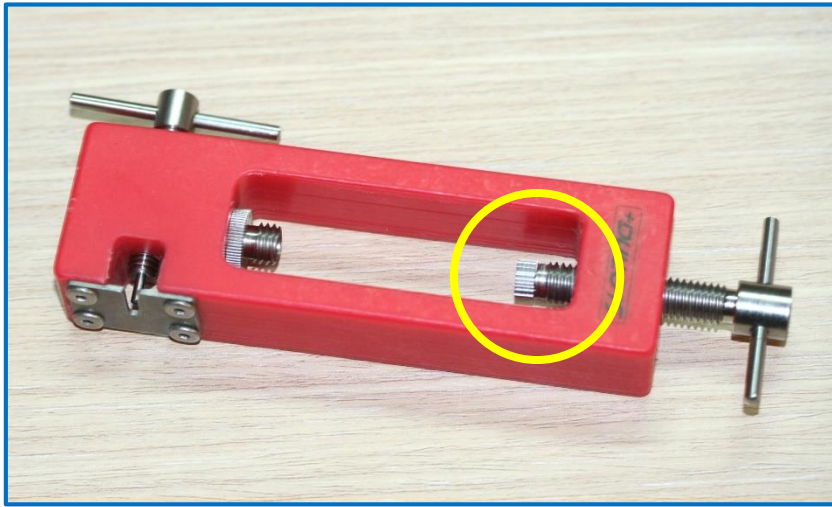


The second system is using a round file so the "watchmaker" kind and, very important, always rotate it to the left and without exerting much pressure to slightly enlarge the hole in its first section.

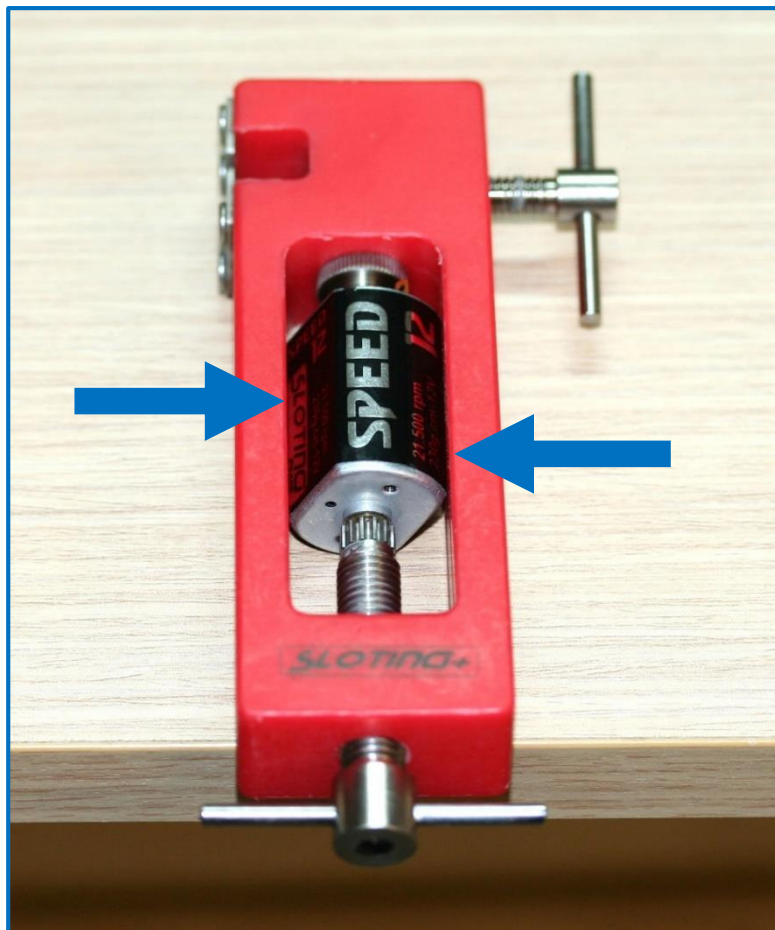


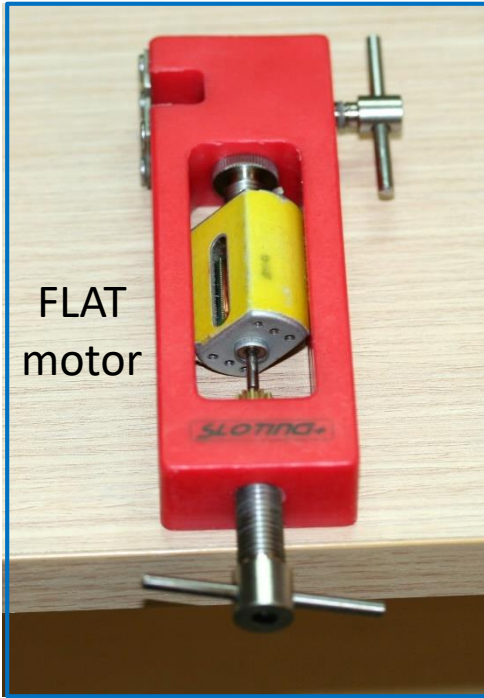
First of all, choose the correct face of the -DUO- screw according to the motor you are going to use.





Secondly, place the pinion in the small guide axle of the screw (yellow circle) and then place the motor with the two sides touching the internal puller walls, as indicated in the bottom picture, and you can start to press the pinion.





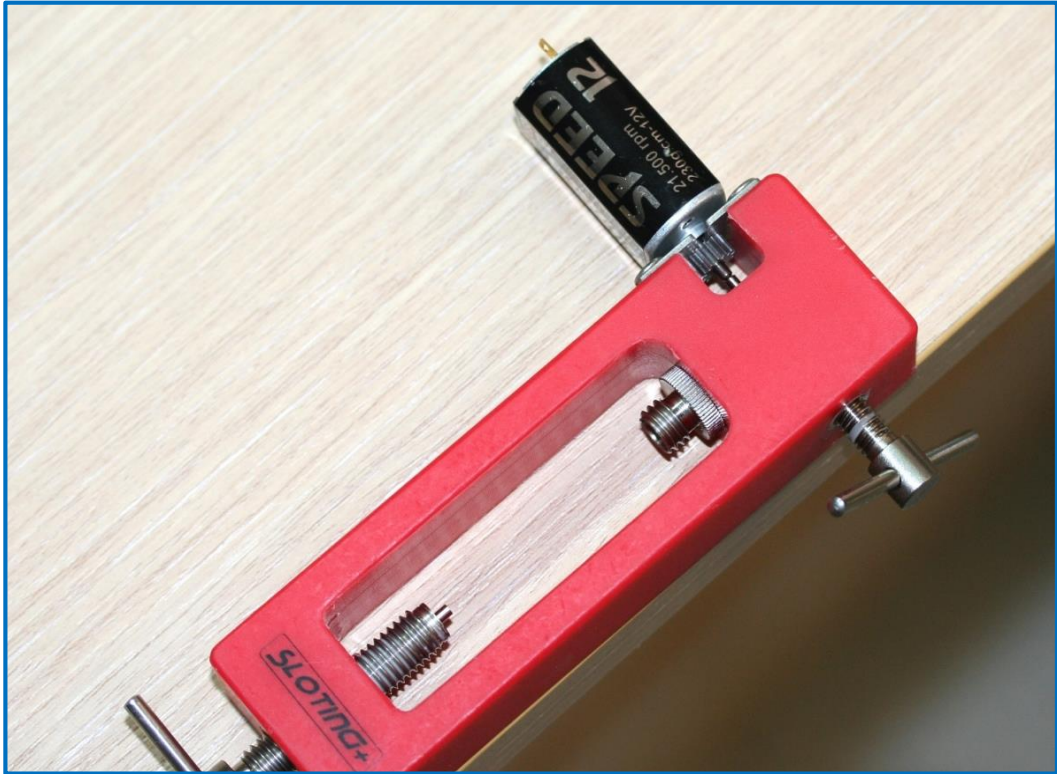
With this new way of placing the motor, resting it on a flat surface (table) and on the face of magnets, the motor is aligned with the rear screw -DUO- and with the pinion.

This is an easier way to fit the pinion than doing it "in the air".



The idea of "aligning" the drive axle with the pinion and its opposite part, to form a perfect straight line, was already implemented by Slotting Plus in 2006 in our first green plastic Gear Press & Pull Tool and in later models, including the penultimate model in Stainless Steel. to which we provide two silicone rings to keep the motor attached and in the linearity of all the necessary parts to press the pinion in the motor.

Now it is just as effective but even simple than in the previous model.



To remove the pinion, we do the same as to press it. Place the motor by the face of the magnet by letting it fall and for it to position itself.

Gently turn the screw until the steel end aligns with the motor axle. You will notice the rear of the motor rise slightly, indicating that the axle and steel end are now correctly aligned, and you can begin to remove the pinion.

Don't worry if, in the case of an over driven pinion, the hardened steel sheet bends slightly to snap back into place later.

When this happens, it is a sign that it's a poorly manufactured or defective pinion - the hole- as we mentioned at the beginning.

If to press or remove a pinion you need to exert "brutal force", this is a very bad sign, no pinions needs so much force. The performance of the pinion does not require it. Don't be fooled by that feeling, it's an erroneous myth that disguises the lack of precision when making the hole.