

Magnetic Finger, Version 1.0

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I needed to add a 10-24 nut and bolt to the corner of a shelf unit. It should be easy.

I slipped the bolt into the hole in the front and picked up the nut. Damn, I dropped it into some unreachable corner.

Before picking up a second nut, I decided that a homemade tool was in order.

Why?

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Here is the bigger picture. That bolt is barricaded into a tight space. It is hard to reach the front and nearly impossible to put on the nut from underneath.

Maybe the *real* take-home message is constantly thinking about homemade tools while working. If a task is the least bit frustrating, consider how to improve matters with such a tool. It doesn't have to be fancy, pretty, or even durable².

It just has to work for the task at hand.

² A previous solution to this problem involved cutting the end off of a disposable glove finger. I dropped in a magnet and put on the tip. That tip is now dried up and stiff. Given the value of this function, a bit more durability is in order.



Out of my junk drawer came this soft plastic pipe plug.



From my collection of K&J Magnetics neodymium magnets came one about 3/16 inch in diameter, able to accept a 2-56 bolt.

I drilled a hole in the cap, fitted a tiny bolt, and put the assembly into the hole. I screwed on a nut on the backside. The head of the screw is slightly proud of the magnet.



The cap fits snugly on most of my fingers and securely holds the nut. The head of the 2-56 screw centers the 10-24 nut.



I could then place that nut on the end of the bolt without worrying about dropping it.



After a quick spin of the nut, I had no problem tightening the bolt.

I put my new tool in with my screwdrivers. Hopefully, I'll see it there the next time I'm straining my back trying to place a nut into a blind spot in the corner of a pile of stuff.

I welcome your comments and questions.

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