The 3D model for this utility knife was designed by @iczfirz. Portalportation has purchased a license permitting the sale of 3D prints of this model.

Documentation and artwork created by Portalportation.

3D model designed by:

makerworld.com/en/@iczfirz

Printed and assembled in Windsor, CO

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3D Printed Out-the-Front Utility Knife



- Spring loaded deployment and retraction
- Firmly push the slider forward to deploy the blade
- Pull the slider backward to retract the blade
- User replaceable blade compatible with standard trapezoid utility blades

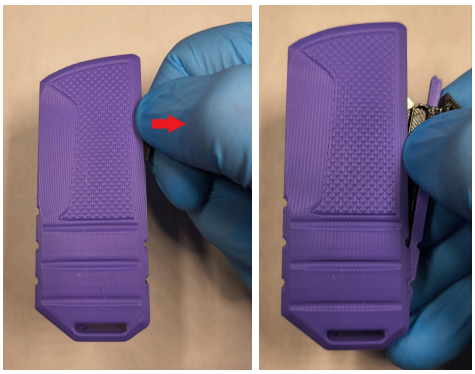
Parts list



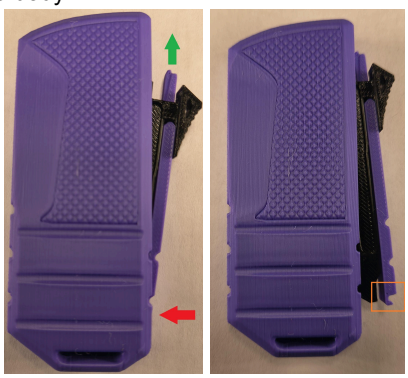
1. Knife body
2. Trigger spring
3. Tension spring
4. Slider body
5. Blade carrier
6. Blade
7. Top cover

Changing the Blade / Full Disassembly

1. Firmly grip the sides of the slider and **pull away from the knife body** to disengage the top cover.



2. Push the rear of the top cover into the knife body while pulling the top cover towards the front of the knife body. There is a **small hook** on the end of the top cover that needs to be disengaged from the rear of the knife body.



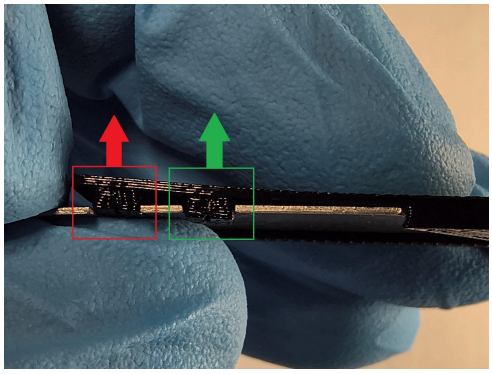
3. Lift the rear of the slider body / blade carrier assembly out of the knife body and remove the slider body / blade carrier assembly. This may require a bit of wiggling, but it should come out with no force.



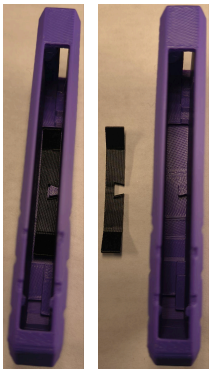
4. Separate the blade carrier and slider body. At this point the tension spring can be removed from the slider body, but this is **not necessary** to change the blade.



5. Remove the blade from the blade carrier by **pushing the front retaining pin** of the blade carrier out of the blade followed by **the rear pin**.



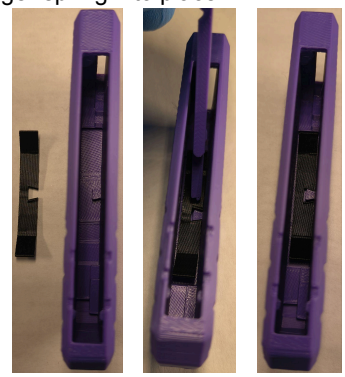
6. At this point the trigger spring can be removed from the knife body, but this is **not necessary** to change the blade.



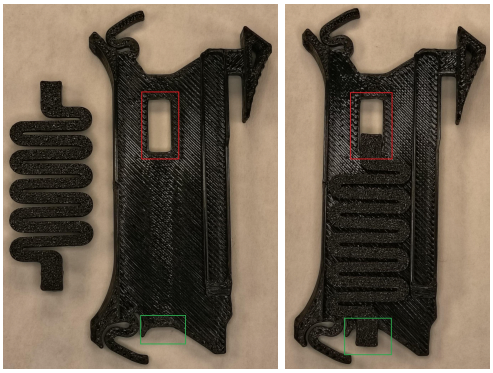
Warning: Be sure to keep your fingers clear of the front of the knife when deploying the blade. The blade deploys with enough force to cause potential injury.

Assembly

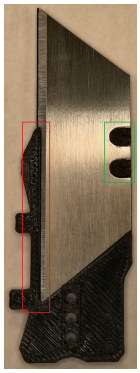
1. Place the trigger spring into the knife body ensuring that the ends of spring are curving upward and that the spring is seated in the dovetail at the bottom of the knife body. The top cover can be used as a tool to help push the trigger spring into place.



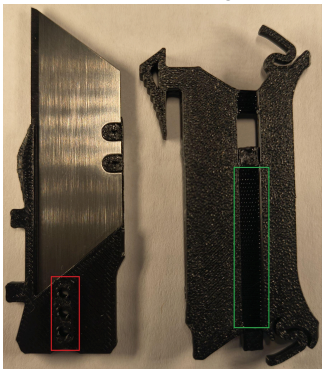
2. Attach the tension spring to the slider body by hooking one end of the tension spring into the **rectangular cutout in the center of the slider body** and hooking the other end over the **bottom of the slider body**.



3. Carefully place a blade into the blade carrier by inserting the edge of the blade into the **groove opposite of the retaining pins** and then press the **retaining pins** into the notches of the blade.



4. Place the blade carrier onto the slider body ensuring the **guide on the blade carrier** sits within the **slot of the slider body** opposite of the tension spring. If you slide the blade carrier back and forth along the slider body you should find that it is stopped by the hooks on each end of the tension spring.



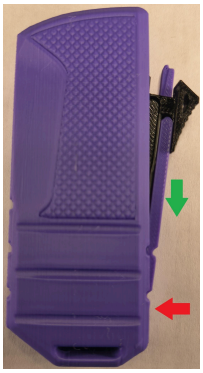
5. **Insert the blade end of the slider body / blade carrier assembly** into the knife body and then **rotate the end of the assembly** into the knife body. This may require a bit of wiggling, but the slider body / blade carrier assembly should fall into the knife body without any force.



6. **Slide the top cover beneath the slider of the slider body**. You may need to slightly lift the slider body / blade carrier assembly.



7. **Push the rear of the top cover into the knife body** and **push the top cover towards the rear of the knife body**. There is a small hook on the end of the top cover that needs to engage with the rear of the knife body.



8. Snap the front of the top cover into the knife body.



9. **Push the slider forward**. If the blade does not fully deploy then **carefully pinch the sides of the blade and pull it outwards** until it either stops or you hear a faint click. This should seat the blade in its fully extended position. **Pull the slider backward to retract the blade**.





Warning: Be sure to keep your fingers clear of the front of the knife when deploying the blade. The blade deploys with enough force to cause potential injury.