



Umikot V2 Breville 54mm Version - Planetary Gear Spirograph Espresso WDT Tool

T Tyler 00

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Summary

54mm version of the Umikot V2 Short

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I waited for a month for the original author to respond whether there will be a V2 for 54mm portafilters, and then decided to make my own. This is not a scaled model, but a re-computed one.

Please follow the original Umikot instructions

Note this is the short version so you need to cut the needle handles. No matter what basket you use, the needles are in 2 lengths - 55mm and 45mm. The way to fit different basket is to adjust the needle depth configuration, which dictates the height of the base part.

Provided configuration

The STL files are for my own configuration, 54mm portafilter and 26mm depth basket. Also included some similar configurations for your convenience. They are organized by folders.

Other configurations

Please export yourself on [OnShape](#). Remember to uncheck Handle groove if you choose anything other than Long Tabs.

Note that I made many features available as configurations. So technically it will work for many different sizes.

For reference, these are the changes I made.

Comparing Main and Start | Reverse compare

Main (millimeter, degree)		Start (millimeter, degree)
Configurations		
☐ RotateForPrinting		☐ RotateForPrinting
Needle Depth 25 mm		Needle Depth 25 mm
Needle Handle Hole 1.8 mm		Needle Handle Hole 1.8 mm
Portafilter Interface Long Tabs ▾		Portafilter Interface Long Tabs ▾
Magnets None ▾		Magnets None ▾
Lug/Ear Width Standard (27mm) ▾		Lug/Ear Width Standard (27mm) ▾
Handle Small ▾		Handle Small ▾
☒ Countersunk Screws		☒ Countersunk Screws
Basket Lip OD 62.5 mm		Basket Lip OD 70.5 mm
Basket ID 54 mm		
☒ Handle groove		
Features		
(x) #NeedleSpread = 54.5 mm	≠	(x) #NeedleSpread = 58.5 mm
(x) #BasketID = 54 mm	≠	(x) #BasketID = 58 mm
(x) #OuterDiameter = 74.9 mm	≠	(x) #OuterDiameter = 78 mm
(x) #PFOD = 63.5 mm	≠	(x) #PFOD = 74.1 mm
 PF Ear Cutouts	≠	 PF Ear Cutouts
 Draft 1	≠	 Draft 1
 Fillet 15	≠	 Fillet 15
 Fillet 16	≠	 Fillet 16
 Fillet 9	≠	 Fillet 9
 Fillet 12	≠	 Fillet 12
 Sketch 7	>	
 Extrude 22	>	
 Fillet 20	>	

This remix is based on



Umikot (58mm Version) - Planetary Gear Spirograph Espresso WDT Tool

by redfoxdude

Model files



1 - Spin Rings

2 files



umikot54s-spin-ring-v2-nohandle.stl



umikot54s-spin-ring-v2.stl



1.1 - Handles

3 files



umikot54s-handle-large.stl



umikot54s-handle-small.stl



umikot54s-handle-push-pin.stl

☐ not ergo, but something fun



2 - Mech

1 file



2-umikot54s-mech-v2.stl



3 - Long tabs

3 files



umikot54s-stand-longtab.stl



umikot54s-base-v2-26mm-longtab.stl



umikot54s-base-v2-25mm-longtab.stl



3 - Short tabs

3 files



umikot54s-stand-shorttab.stl



umikot54s-base-v2-26mm-shorttab.stl



umikot54s-base-v2-25mm-shorttab.stl



umikot54-26mm-long-tabs.stl

☐ One stop solution for all components, remember the Mech V2



umikot54s-26mm-short-tabs.stl

☐ One stop solution for all components, remember the Mech V2

umikot58s-base-v2-26mm-long-tabs.3mf

☐ Bambu Studio print plate

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