



eSun cardboard spool replacement (v3)



thoperSought

VIEW IN BROWSER

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Summary

AMS compatible replacement for damaged eSun cardboard spools

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I dropped my dark blue eSun PLA+ a few times, and the cardboard sides were deformed enough that it wouldn't roll properly in the AMS— <https://www.printables.com/model/608351-esun-bambu-lab-ams-cardboard-spool-adapter-ring> wouldn't fit properly, and it kept jamming against the lid.

this variation of the LockSpool fits through the eSun cardboard hub, and into the AMS. once I sorted my tangles, it rolled very well.

this version of it fits <https://www.printables.com/model/576578-bambu-lab-ams-universal-spool-center-desiccant-hol> . I had to cut the hub walls by 1mm to get the diameter inside the hub back up to “normal”.

credit where it's due: I just plugged numbers into the original scad model to get this—and had to update my openscad to get it to work.

on request, here are the parameters I used (json save file included below):

```
"bearing_dia": "52",  
"hub_dia": "81",  
"hubindent": "0",  
"hubwall": "9",  
"inner_width": "58",  
"label": "v2 eSun cardboard replacement",  
"numslots": "4",  
"spool_dia": "200"
```

per the Bambu Wiki, "The AMS supports spools with a width of 50-68 mm and a diameter of 197-202 mm." this is the **total width**, including the spool walls, so is greater than the "inner_width" of the lockSpool settings.

v2

the extra space made it possible to get the messed up roll of dark blue onto the v1 spool, but occasionally allowed the filament to get caught. I'm leaving v1 on here, in case it's useful for someone, but I'm not going to use it myself. if your spool is as messed up as mine was, I recommend making a Pastamatic (<https://www.printables.com/model/466883-pastamatic-filament-spool-winder-for-bambu-lab-x1c>).

following the suggestion by Chad Wansing, I put a new spool of black flat on the table, peeled a side off, and fitted the first half of the spool, then carefully turned it over and repeated the process. this kept the filament pretty well spooled, and it worked great once I put it into the AMS.

v3

apparently, at least some eSun spools have a **much** smaller diameter. for the smaller hub diameter, I had to reduce the bearing diameter, as well, to get the model to render. this means that desiccant containers (&c.) may not fit this version.

```
"bearing_dia": "48",  
"hub_dia": "76",  
"hubindent": "0",  
"hubwall": "9",  
"inner_width": "58",  
"label": "undersized eSun cardboard replacement",  
"numslots": "4",  
"spool_dia": "200"
```

This remix is based on



LockSpool V3: Parametric, reusable (1 part printed twice)

by Anachronist

Model files



v2-esun-cardboard-replacement.stl

created by openScad



v2-esun-cardboard-replacement.obj

created by openScad

v2-esun-cardboard-replacement.3mf

created by openScad, modified by Orca Slicer



undersized-esun-cardboard-replacement.3mf

created by openScad



undersized-esun-cardboard-replacement.obj

created by openScad



undersized-esun-cardboard-replacement.stl

created by openScad



v1-esun-cardboard-replacement-lockspool.stl

created by openScad

v1-esun-cardboard-replacement-lockspool.3mf

📄 created by openScad, modified by Orca Slicer

Other files

esun-cardboard-replacement.txt

📄 json save data renamed as txt

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