



Modular Prize Wheel



Micron_Flash

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Summary

A modular prize wheel. Swap out pie slices to mix up the odds of each prize slot

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Tags: [spinner](#) [wheel](#) [modular](#) [customizable](#) [spinning](#)
[winner](#) [prize](#) [fractions](#) [odds](#)

Print list:

- Wheel Construction (Full Set):
 - 20% infill, 3 walls, 0.2 layer height:
 - Spinner_Spinner v16_Wheel_1_FlatSpoke - x12
 - Spinner_Spinner v16_Wheel_1_Spoke - x16
 - Spinner_Spinner v16_Wheel_1_CenterHub - x1
 - Spinner_Spinner v16_Wheel_1_BottomHub - x1
 - Spinner_Spinner v16_Wheel_1_TopHub - x1 - Optional color change here :)
 - Spinner_Spinner v16_Nub - x1
 - Spinner_Spinner v16_Wheel_1_Pie1 - x16
 - Spinner_Spinner v16_Wheel_1_Pie2 - x8
 - Spinner_Spinner v16_Wheel_1_Pie3 - x5
 - Spinner_Spinner v16_Wheel_1_Pie4 - x4

- Base Construction:
 - 25% infill, 4 walls, 0.2 layer height
 - Spinner_Spinner v16_Leg-R - x2
 - Spinner_Spinner v16_Leg-L - x2
 - Spinner_Spinner v16_LegsConnector - x2
 - Spinner_Spinner v16_ShortConnector - x1
 - Spinner_Spinner v16_LongArmConnector - x1
 - Spinner_Spinner v16_FlapperHolder - x1
 - 15% infill, 2 walls, 0.2 layer height
 - Spinner_Spinner v16_Flapper - x1
- Hardware:
 - M2x10 Hex Socket Head - x6
 - M2x4 Threaded Insert - x6 - [amazon](#)
 - M3x10 Hex Socket Head - x4
 - M3 Nut - x4
 - M4x35 Any Head Type - x1
 - M4 Nut - x1
 - M4 Washer - x4
 - 624ZZ Bearing 4mmx13mmx5mm - x2 - [amazon](#)
- Notes:
 - In the Center Hub - No Threaded Inserts M3 Folder there are alternate models that don't utilize the M2 threaded inserts but use M3 bolts and Nuts instead

Print Tips:

- All parts should print without supports
- The Spinner_Spinner v16_Wheel_1_Spoke uses a thin wall to support an overhang. Make sure to enable detect thin walls in the slicer. These thin walls should peel away easily. A sharp hobby knife and needle nose pliers can help. Please be safe if you use a knife.
- Plan ahead what color patten you would like
- Make sure to print all parts with consistent settings. This will help the wheel remain balanced.
- Some pieces are designed to fit together tightly. Using a file or sandpaper to clean some edges can help them slide together more easily.
- Pie slices bottom surface faces forward. Use a PEO or PEY build plate to add some flair to the wheel. I use [this](#) one from amazon.

Assembly Instructions:

The wheel can be assembled in many ways. There are 16 slots in the center hub. Each pie slice is numbered 1-4. As long as all number add up to 16 you can arrange them in any order. Keep in mind that a symmetrical wheel will be more balanced and fair.

Make sure to remove all the thin walls from the spokes before assembly

- BottomHub:
 - Using a soldering Iron insert the m2 threaded inserts into the BottomHub. Make sure they are flush and straight.
- Wheel:
 - The pie slices have a ridge on the outside that should slide neatly onto either side of the spokes. Work your way around adding your pie slices and spokes until you have a full circle. The last pie slice and spoke can be a little tricky and may require a bit of force to get it to fall into place. If your wheel uses pie slices 2-4 use flat spokes to support those pie slices.
 - Once a full circle is complete take the CenterHub and align the spokes with the slots and press together. Using the TopHub and BottomHub sandwich the CenterHub together and tighten together with the 4 M2x10 bolts. Putting the M4 bolt through all the pieces can help with alignment of the 4 bolts.
- Base:
 - Press the 624ZZ Bearings into the LongArmConnector and ShortConnector. These are press fit and will be tight.
 - Attach a Leg-R and Leg-L to both the LongArmConnector and ShortConnector using the M3 nuts and bolts
 - Slide the LegsConnector into the slot on the bottom of the legs. This is a tight fit and shouldn't easily come apart.
 - Using a soldering iron insert 2 M2 threaded inserts into the FlapperHolder making sure they are flush and straight.
 - Attach the FlapperHolder to the top of the LongArmConnector using 2 M2x10 bolts
- All together:
 - Put the wheel between the LongArmConnector and ShortConnector securing it together with the M4 Bolt coming from the backside. Press a M4 nut into the Nub and thread it onto the bolt and tighten snug.
 - Finally slide the Flapper into the FlapperHolder and spin the wheel!

Model files



Center Hub - No Threaded Inserts M3 (Optional)

3 files



spinner_spinner_bottomhubm3.stl



spinner_spinner_centerhubm3.stl



spinner_spinner_tophubm3.stl



spinner_spinner-v16_wheel_1_flatspoke.stl



spinner_spinner-v16_wheel_1_pie1.stl



spinner_spinner-v16_wheel_1_pie3.stl



spinner_spinner-v16_legsconnector.stl



spinner_spinner-v16_wheel_1_pie4.stl



spinner_spinner-v16_wheel_1_spoke.stl



spinner_spinner-v16_wheel_1_pie2.stl



spinner_spinner-v16_wheel_1_centerhub.stl



spinner_spinner-v16_leg-r.stl



spinner_spinner-v16_shortconnector.stl



spinner_spinner-v16_flapperholder.stl



spinner_spinner-v16_flapper.stl



spinner_spinner-v16_leg-l.stl



spinner_spinner-v16_wheel_1_bottomhub.stl



spinner_spinner-v16_longarmconnector.stl



spinner_spinner-v16_nub.stl



spinner_spinner-v16_wheel_1_tophub.stl

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