



Rock Cairns



Wim V

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Summary

Create impossible Rock/Pebble Cairns. Have a stacking contest or fool others who don't know the secret.

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Tags: [rock](#) [magnet](#) [stackable](#) [magnetic](#) [contest](#) [pebble](#)
[zen](#)

Ever seen those amazing Rock Cairns?



Image by rawpixel.com on Freepik

Yes that's how they are called. A Cairn is a group of stones carefully arranged on top of each other. It's like a piece of visual art, hard to make, but not anymore!

Use your secret weapon: magnets, and amaze others and yourself with seemingly impossible piles.

- Use it in your own mini Zen garden or create one.
- Have pile competitions with others who can make the highest or most beautiful pile.
- Amaze others with your stacking skills and give them a set without magnets with the challenge that they make such a beautiful stack themselves...

I made some pebbles consisting of 2 identical halves, which are hollow to accommodate the magnets. The 2 halves can be connected to each other by means of the coupling piece. The halves are labeled at the bottom.

Print the halves with the flat side on the bed and the connectors with the edge horizontal all around. No support needed. Printed with 0.4 nozzle and 0.2 layer thickness. I used Fuzzy Mode outside walls with skin thickness 0.2 and skin point distance 0.1. This gives the pebbles a more uniform appearance and hides the layer lines well. They are also a little bit rough, which makes shifting a bit more difficult. (p.s. without Fuzzy mode they also stack well!) A project file is added with all 6 pebbles.

Use a dark color or a color that doesn't let light through with 2 layers to hide the fact that it contains magnets. The magnets by the way are **Ø5x5!**

After printing, you can simply slide the magnets into the halves (in each half one). Then connect the halves together with the coupling piece. The coupling piece is made with a very tight fit. If necessary, scale the coupling pieces by 0.5% at a time to get the ideal size so that both halves remain in place due to clamping alone.

The magnets are easy to remove from the halves by pulling them out again with another magnet. If you want to glue the halves, this is of course also an option. In that case you will have to break the pebbles to remove the magnets. (gluing makes the seam almost invisible)

I added a simple round tray that can be printed in vase mode to create a mini Zen garden.

For the pebbles next to the Cairn I printed the **Smooth stone** from **Cacti** and scaled with different factors in X, Y and Z. (no magnets in these pebbles). Used support on the build plate for these ones. As sand in my model I used a bit of bird grit.

See the video how to assemble and the 360° result:

Model files



pebble-1.stl



pebble-2.stl



pebble-3.stl



pebble-4.stl



pebble-5.stl



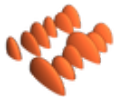
pebble-6.stl



connection-piece.stl



tray.stl



all-6-pebbles-with-fuzzy-skin.3mf

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