Subject: Mob-Tor (Moebius Torus)
Posted by Magic on Mon, 21 Jan 2013 22:39:30 GMT
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Hi all,

I wanted to redo pendants based on marbles such as the double-marble pendant for instance: I like the idea of mixing common existing objects with 3D printed models.

I came up with the Moebius Torus, that I caled Mob-Tor to have something shorter.
The idea is to put a number of marbles (for instance 3) into a torus, so that they can revolve inside it. To do that you have to cut this torus into two and keep only one half. I cut it a "twisted" way, like in a Moebius ring.
Here is a rendering of the half Mob-Tor to understand better:

The result is similar to the Twin Rail Mobius Pendant of Stop4Stuff or the One ring to pwn the ball of TerraCotta. These models are quite famous so I guess they have inspired me. The marbles are forced to move into "tunnels" like the first one (at least partially) and move along a simple circle like the second (see the video).
This is still a prototype, I don't even know if the marbles will stay inside the model without falling (or if at the contrary they could not be inserted). So perhaps some adjustements are needed.

I also plan to have the two halves printed along with 3 marbles to get the Mob-Tor with marbles:

Here it is easier to see the original torus. Once again, I have to test if this model is really stable or if the marbles will be easy to move.

Any comment is welcomed.
Thanks!

Subject: Re: Mob-Tor (Moebius Torus)
Posted by UniverseBecoming on Wed, 23 Jan 2013 03:10:05 GMT
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Very cleaver design! I see how you've removed the unnecessary parts of the torus while still leaving enough to capture the spheres. Maybe you'll have the next big captured spheres design!
As a suggestion, I'd find out what the common sizes are for undrilled spherical beads and then make a corresponding Mob-Tor for each common size.

Subject: Re: Mob-Tor (Moebius Torus)
Posted by Magic on Wed, 23 Jan 2013 06:51:09 GMT
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Thank you!
I kept a contact of 60Â° on each side of the marble, with a clearance of 0.5mm. I hope this will be enough. For the half Mob-Tor, I could make those angles larger (say, until 90Â°) or reduce the clearance since the marbles will not be printed.
Currently the pendant is planned for 5/8" marbles (16mm) which should be quite standard for glass marbles (at least, this is the size of those I got from when I was a kid).

Subject: Re: Mob-Tor (Moebius Torus)
Posted by Magic on Wed, 06 Feb 2013 19:50:39 GMT
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It arrived!

Subject: Re: Mob-Tor (Moebius Torus)
Posted by Magic on Sun, 04 Jan 2015 17:07:53 GMT
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It arrived again! In Polished Gold Steel.