Subject: Weekend Contest #18: Tesla week
Posted by Youknowwho4eva on Fri, 12 Jul 2013 16:16:13 GMT
View Forum Message <> Reply to Message

As you should know, Nikola Tesla's birthday was Wednesday. What better way to celebrate the life of a super genius inventor that has shaped our lives in so many ways, then a contest for some super genius inspired designs?

So your challenge, if you accept it, is to create a printable design that represents Tesla, and or one of his contributions. AC power, radio waves, wireless transition of electricity, what ever you use most, or see as most impressive.

Post a picture of you model here, describe it's inspiration, and the model itself (material, usage, etc)

What's the prize?

$25 to use towards your creation, or any other Shapeways purchase.

That's all?

That's it, so plug into your AC outlet, use your wireless router, sit in your electrified thinking chair, and get designing

File Attachments

1) tesla birthday.jpg, downloaded 679 times

Subject: Re: Weekend Contest #18: Tesla week
Posted by Innovo on Fri, 12 Jul 2013 17:47:38 GMT
View Forum Message <> Reply to Message

My tribute to the Man. I made this a few months ago so feel free to exclude me from the competition part, if its against the rules.

Based on his famous 1896 photo portrait, this is a 3D relief framed micro-painting representation, to honor one of the greatest inventors in human history.

I made it as a totem, to adorn my office and turn to for inspiration, when I am out of fresh ideas. He's like my inventor guardian angel

The choice for the FCS material was obvious since it's the only multicolored option for my micro-painting and it helps to keep costs down.

Nikola, I salute you!!!

File Attachments

1) Tesla 6.jpg, downloaded 647 times

Subject: Re: Weekend Contest #18: Tesla week
Posted by MrNib on Fri, 12 Jul 2013 17:50:26 GMT
View Forum Message <> Reply to Message

This contest makes me all tingly inside!

Subject: Re: Weekend Contest #18: Tesla week
Posted by Youknowwho4eva on Fri, 12 Jul 2013 18:52:57 GMT
View Forum Message <> Reply to Message

MrNib wrote on Fri, 12 July 2013 17:50This contest makes me all tingly inside!

You may be sitting too close to your Tesla Coil .

Subject: Re: Weekend Contest #18: Tesla week
Posted by PeregrineStudios on Fri, 12 Jul 2013 19:40:10 GMT
View Forum Message <> Reply to Message

This looks very cool - my first time entering one of these (and my first time seeing the contest in time to actually do so). And what an awesome contest idea, too! Tesla for the win.

I have a few ideas.... muahaha.

Subject: Re: Weekend Contest #18: Tesla week
Posted by stonysmith on Fri, 12 Jul 2013 21:01:46 GMT
View Forum Message <> Reply to Message

If only we could mix metal+plastic in the same model.. we could print our own Telsa coils.

Subject: Re: Weekend Contest #18: Tesla week
Posted by trishycakes on Fri, 12 Jul 2013 21:31:34 GMT
View Forum Message <> Reply to Message

I have wanted to make this ring for my Mom for a long time. She is a major Tesla fan. It is made to resemble the patterns created by a tesla coil around an object--your finger. I have always been fascinated with electricity and Tesla coils are super cool.

The Model can be found here: https://www.shapeways.com/model/1207157/tesla-coil-ring.html

Subject: Re: Weekend Contest #18: Tesla week
Posted by Brian_Richardson on Sun, 14 Jul 2013 02:06:58 GMT
View Forum Message <> Reply to Message

Like all great inventors, the power comes from the Mustache.

Mustache is removable from base, so you can tape it to your face!
I would recommend getting it in WSF and painting it with glow paint. Since you can't print lightning.

Model is here: https://www.shapeways.com/model/1209047/teslastache.html?

File Attachments
1) tesla 1.jpg, downloaded 484 times

Subject: Re: Weekend Contest #18: Tesla week
Posted by UniverseBecoming on Sun, 14 Jul 2013 07:17:20 GMT
View Forum Message <> Reply to Message

Great contest idea!

I'm too busy to enter, but It'll be fun to watch and see who wins.

Stony, I wish we could do this too!

We could make the first primary out of steel, but what about the secondaries and second primary. Has anyone ever bothered to test if any of the black materials are conductive at high voltages? Or alumide? If any were we could use one of those to make the secondaries and second primary.

The ceramic material would most likely work as a good dialectic at high voltage.

Subject: Re: Weekend Contest #18: Tesla week
Posted by Daphne on Sun, 14 Jul 2013 12:48:23 GMT
View Forum Message <> Reply to Message

When is the deadline?

Subject: Re: Weekend Contest #18: Tesla week
Posted by Youknowwho4eva on Sun, 14 Jul 2013 18:15:08 GMT
View Forum Message <> Reply to Message

Daphne wrote on Sun, 14 July 2013 12:48When is the deadline?
How'd I miss that? End of the day Monday.

Subject: Re: Weekend Contest #18: Tesla week
Posted by tomatwell on Mon, 15 Jul 2013 05:07:55 GMT
View Forum Message <> Reply to Message

I am new to Shapeways and have not yet set up shop. I am in the test phase and have only received a few parts so far.

So, I saw this contest and thought I would make a quick weekend attempt.

One of the iconic designs of Nikola Tesla is Wardencllyffe Tower. It was built for wireless electrical transmission. If this concept had proved out we would see these on the landscape today. Instead of our current electrical towers strung in a line all interconnected with wires, we would have one of these at a power generating plant and another at a receiving station with no connections in between. Wouldn't that be cool!

For my model I found old images of the original and images of a model that someone else had done. I took a few quick overall measurements of the original. The tower is straight forward, but the top dome structure is a bit of a mystery. The old images don't show enough detail to discern the actual geometry. The images of the model do not seem to match up exactly with the original. A quick look at the patent was no help either.

In the end I simplified some of the design and just guessed for other areas. I could not make the dome members as thin as they appear in the original. So, there are some discrepancies there, also.

I do think the overall appearance is a good mimic of the original. If I had more time I would probably throw in more detail and try to get a more accurate rendering.

The Model can be found here: http://shpws.me/otNl

Subject: Re: Weekend Contest #18: Tesla week
Posted by coolbutpointless on Mon, 15 Jul 2013 06:41:09 GMT
View Forum Message <> Reply to Message

One of my favorite things about Tesla is his love of the sphere to the point of having a custom spherical urn created to store his ashes upon his death. As such, I have designed this pendant with his urn as a central theme:

The central piece is a "hovering" sphere, representing his urn containing the remnants of his greatness. Emitting from the rear are stylized electrical arcs representing both his explosive genius and his experiments with all manner of electricity!

It is intended to be created in any of the glossy metals, any of the silvers, but would be best created in the premium silver!

While it may not be the most immediately obvious Tesla reference, I feel it would be a good conversation starter at a party when complimented by a matching silver chain. It could also be made to function as a pin with minor modification to the model.

File Attachments

1) NikolaTeslaPendantEntry.jpg, downloaded 368 times

Subject: Re: Weekend Contest #18: Tesla week
Posted by sorhain on Mon, 15 Jul 2013 06:47:56 GMT
View Forum Message <> Reply to Message

This is another wonderful contest idea!!

I thought coils would be a great idea for earrings (hooks not included). This is what I came up with

And here is the link to the model for more views:
https://www.shapeways.com/model/1211168/tesla-earrings.html

File Attachments

1) tesla earrings with hooks.jpg, downloaded 360 times

Subject: Re: Weekend Contest #18: Tesla week
Posted by bartv on Mon, 15 Jul 2013 12:10:12 GMT
View Forum Message <> Reply to Message

Wow I love the concepts here. Had a good laugh about Brian_Richardson's moustache - you may be on to something here

Nice choice of topic Mike, good work

Bart

Subject: Re: Weekend Contest #18: Tesla week
Posted by MrNib on Mon, 15 Jul 2013 12:57:47 GMT
View Forum Message <> Reply to Message

Mrnib had a minor car fender bender this weekend and will likely be on the phone and doing paperwork instead of honoring Mr Tesla...

Subject: Re: Weekend Contest #18: Tesla week
Posted by stonysmith on Mon, 15 Jul 2013 16:49:35 GMT
View Forum Message <> Reply to Message

Alumide is definately non-conductive. I've tested it.

Subject: Re: Weekend Contest #18: Tesla week
Posted by Youknowwho4eva on Mon, 15 Jul 2013 16:54:33 GMT
View Forum Message <> Reply to Message

tomatwell wrote on Mon, 15 July 2013 05:07One of the iconic designs of Nikola Tesla is Wardencllyffe Tower. It was built for wireless electrical transmission. If this concept had proved out we would see these on the landscape today. Instead of our current electrical towers strung in a line all interconnected with wires, we would have one of these at a power generating plant and another at a receiving station with no connections in between. Wouldn't that be cool!

If I'm not mistaken, the tower was meant to transmit and also be powered by the Earth's ionosphere, eliminating the need for power generating plants.
Unlimited free electricity... Would be very cool, but not very profitable.

Subject: Re: Weekend Contest #18: Tesla week
Posted by UniverseBecoming on Mon, 15 Jul 2013 17:05:50 GMT
View Forum Message <> Reply to Message

Hi Stony. I see I see, thanks for the feedback.

Subject: Re: Weekend Contest #18: Tesla week

Posted by draw on Mon, 15 Jul 2013 17:51:27 GMT
View Forum Message <> Reply to Message

Here is a Nikola Tesla stamp ring from the ring creator but only in size 5. Nick is a bit wide in the face with larger ring sizes. I selected WSF because metal finger rings and Tesla lightning don't mix!

http://shpws.me/oumy

File Attachments
1) teslaring3views.jpg, downloaded 262 times

Subject: Re: Weekend Contest #18: Tesla week
Posted by JACANT on Tue, 16 Jul 2013 00:56:37 GMT
View Forum Message <> Reply to Message

Just an exercise of the Tesla Turbine.
https://www.shapeways.com/model/1212894/tesla-turbine.html
http://tinyurl.com/ox7cjwz

File Attachments
1) Tesla Turbine.png, downloaded 224 times

Subject: Re: Weekend Contest #18: Tesla week
Posted by bartv on Tue, 16 Jul 2013 09:58:52 GMT
View Forum Message <> Reply to Message

I saw this model on our site a few weeks ago: the Tesla Valve. As a physicist, I'm baffled that this actually works! Check out the video on YouTube as well.

Subject: Re: Weekend Contest #18: Tesla week
Posted by Youknowwho4eva on Tue, 16 Jul 2013 14:40:31 GMT
View Forum Message <> Reply to Message

I need to stop picking such good topics, you guys can sure make picking a winner hard!

Innovo - I'd love to have that on my desk. Currently have 2D print outs of Tesla, Einstein, and Davinci looking over me.
trishycakes - That looks electrifying! Hope to see that at a future Baltimore meetup?
Brian_Richardson - The power of the Stash! A few of us Shapeways employees try to empower these with the use of beard power as well
tomatwell - Way to kick off being a new user, jumping right into a contest! One of many lost Tesla contributions that would make our technological world even more impressive.
coolbutpointless - Not sure his greatness could fit in such a small urn lol. But I certainly wouldn't mind having a piece of it.
sorhain - Can't have electrical coolness without coils.
draw - Stamps for the new ring creator. Interesting idea! 20 cent postage, those were the days.
JACANT - One of his great inventions, I can only image what he'd do with a 3D printer.
bartv - Great find! Need more Tesla recreations!

MrNib - oh no! Hopefully you're still inspired to create something without an award.
Daphne - Guess the deadline was too soon? Same goes to you, you guys can still share with us your inspiration!

Certainly not a run away winner, as all of the entries are amazing!
Alas I can only pick one, and this week it's Brian_Richardson with the Teslastache. I can't help but think that even Tesla would crack a rare smirk at your creation. And I'll add 3D printed lightning to the material wish list.

Subject: Re: Weekend Contest #18: Tesla week
Posted by MrNib on Tue, 16 Jul 2013 15:08:57 GMT
View Forum Message <> Reply to Message

bartv wrote on Tue, 16 July 2013 09:58I saw this model on our site a few weeks ago: the Tesla Valve. As a physicist, I'm baffled that this actually works! Check out the video on YouTube as well.

That is interesting! It's almost the electrical equivalent of a microwave waveguide filter except that such filters are generally bidirectional. They use structures like slots, holes, cylinders, cavities, etc. in a metal waveguide path to control what frequencies of electromagnetic energy are allowed to pass through the structure and which ones are blocked.

You can probably think of this Tesla gizmo as a unidirectional low pass filter, with constant unidirectional laminar air flow in one direction being equivalent to DC current. When you blow in the opposite direction you are essentially creating many kinds of circulating and reverse air flows (resonant or perhaps chaotic but certainly non-laminar) that tend to impede the flow of air. Another rough analog would be petting a porcupine. You only pet a porcupine from snout to tail, not the other way around!

Perhaps we next week we could have a contest to develop an app that recreates auto accidents with 3D prints?

. .

Subject: Re: Weekend Contest #18: Tesla week
Posted by UniverseBecoming on Tue, 16 Jul 2013 15:21:46 GMT
View Forum Message <> Reply to Message

bartv wrote on Tue, 16 July 2013 09:58I saw this model on our site a few weeks ago: the Tesla Valve. As a physicist, I'm baffled that this actually works! Check out the video on YouTube as well.

I found that amazing myself! Did he envision this in his mind as working I wonder or did he have other clues that led him to this design. He said that he could see machines working in his mind and could let them run in his mind and come back later and check for things like wear.

Michael Faraday, Leonardo Da Vinci and Nikola Tesla are my three most favorite people.