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Subject: I need help! Trying to do something for charity.  
Posted by [yonibinstock](#) on Tue, 24 Jan 2012 01:28:05 GMT  
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Hey ya'll.

I'm designing a donation box in the shape of the globe to sell with half of the revenue going to a charity.

But I need your help!!

1) First, I need a way to open the globe so that people can get the change out when its full. I'm thinking the easiest way would be to have a split around the globe 2/3 up (think where the tropic of cancer is.

It would be able to be just lifted off and there would be groove in the bottom half, that would fit the top half which would have a fitting extrusion.

I would really appreciate any help developing this by either downloading my model and doing it yourself or telling me what to do.

(As a side note: If you think there is an easier way to develop a system to access the change, please let me know)

2) I was attempting to make a rectangular hole in the top (to allow the user to put in change). For some reason, I could only extrude and not make a hole. Any idea why? Something to do with curved surfaces?

If you have any other ideas on making this a great donation "box", please let me know. I would love your feedback.

Model can be found in the attachment.

Thanks  
yoni

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### File Attachments

1) [Donation Globe.skp](#), downloaded 68 times

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Subject: Re: I need help! Trying to do something for charity.  
Posted by [OracleofWuffing](#) on Thu, 26 Jan 2012 07:52:10 GMT  
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At this point of development, putting in an opening like that is just going to be something you need to apply elbow grease to in order to get it done. As a hindsight, it'd probably be easier to do that sort of hatch if you designed the globe as two separate domes. Oh well!

First thing's first- and this part is a bit off topic- I'm a bit concerned about the polygons you used to make the continents on the globe. You see, those polygons are flat and have no depth. I'm not certain if those will just get joined into the rest of the sphere when it gets uploaded into Shapeways, or if you'll have to extrude and re-connect them ever so slightly to make a 2-manifold shape.

The really, really cheap way to put a hole into the globe for people to put in change is to first hollow it out, erase a few faces, and connect the inner sphere to the outer sphere. Continuing that thought process, the really, really cheap way to do that is to make a copy of the sphere (not the continents, just the sphere), and use Tools->Scale to make the new sphere smaller than the old sphere. Now, this is the important part and I'll leave it to someone else to explain this concept better... Since you want the "outside" of this new sphere inside the old sphere, you want to select that new sphere, right click, and Reverse Faces on it (more savvy people will call this "flipping the normals"). You now have a sphere that's smaller than the original sphere, and its inside-out. Now you want to slide that new sphere inside the old sphere, and you have a hollow sphere.

Halfway there, now here's where the magic happens. When you're working on these spheres, go into the "View" menu and CHECK "Hidden Geometry." This will let you treat all of your curved surfaces like normal polygons.

Of course, if you want to do the cheap way of hollowing out the sphere that I did above, you don't really want to push/pull the hole. You actually want to delete a face or two on the outer sphere, delete some corresponding faces on the inner sphere, and then use the line tool to build a "bridge" surrounding the faces you deleted. Here's a very sloppy example of what the end result would look like:

### File Attachments

1) [Screen shot 2012-01-26 at 1.49.36 AM.png](#), downloaded 160 times

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Subject: Re: I need help! Trying to do something for charity.  
Posted by [yonibinstock](#) on Thu, 26 Jan 2012 13:06:10 GMT

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Wow,

Thanks for the really in depth explanation.

I'll get to it right away,

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