How to do a tiny planet

Tiny planets are awesome. They’re all tiny and planety and stuff. If you have an Android phone with Jelly Bean 4.2 or higher, then you can make one from scratch really easy, no further materials required.

With an Android device

No muss, no fuss: tiny planets are an export option on your stock camera.

**Ingredients**

1. Your device, duh.
2. A pretty scene to photograph.

**Do this**

1. Take a photosphere picture. Keep the phone close to your body and revolve around it.
2. Wait for it to render. Have a coffee. Wait no, that’ll stunt your growth. Just look at your shoes for a minute.

3. Export it as a tiny planet. You’re done. Crazy easy right?

With any kind of camera

Aw yeah, we’re going to do it the hard way. Which is awesome because when you learn to do it the hard way, you learn to modify the steps to suit your own needs, whatever they may be, you special little snowflake. You’re taking control of the outcome. You are the master of your own tiny planet and your own destiny. Let’s go.

**Ingredients**

1. A good panorama. Whoa, wait right there! I said you need a *good panorama*. Let’s dwell on that a moment. Your picture needs to be two things:
• It needs to be **Good**. What makes a good pano? One that that has a horizon that falls close to the middle of the picture. That means roughly half sky and half earth. Bonus points for tall things like trees or buildings that jut out into the sky because they’re going to sit on top of the planet and get distorted in cool ways. And it needs to be ...

• a **Panorama**. Either make one yourself, or download a sample to work with. There are bunches on google+ and flickr.

2. Lastly, you need a computer with GIMP installed on it. GIMP is the *Gnu Image Manipulation Program*. It’s free and awesome. Remember in Narnia how Aslan is awesome and a little bit scary, but good? GIMP is like that. Get it from [http://www.gimp.org/downloads/](http://www.gimp.org/downloads/)

**Steps**

1. Load up your pano in GIMP.
2. In the main window, click on filters -> distorts -> polar coordinates.
3. Uncheck “Map from top” and click OK. Boom. How stupid easy was that?

![GIMP interface](image)

### Further Steps and Fine Tuning

Okay so you probably want to do some tweaking. For example, if your pano isn't 360 degrees, you probably have an unsightly seam down the middle that you want to get rid of. And we can work on the sky and the background a little bit too.

Let’s back up. Hit Ctrl-z to undo the polar mapping, and let me show you a few pointers.

**Cleaning up your pano**

If you took your pano yourself, and there was a lot of action while you were taking it, there might be some weird rendering artifacts, like a floating hand or a disembodied shoulder. Delete these out it you want to. Or leave them in if you like them, you weirdo. It’s your picture. Do what you want. (If you stitched the pano together yourself in Hugin and you have weird artifacts, then you should really consider learning Hugin’s mask tool.)

![Artifacts in panoramic image](image)
Removing the seam
This is probably the trickiest edit we’ll make.
If you have a 360 degree pano, then it lined up great and you can skip this step. A lot of panos though are somewhere between 180 and 360 degrees. They look good, but when you turn them into tiny planets, you can see where the dissimilar edges meet, like on the one to the right.

Let’s fix that.
Okay, so this is what GIMP looks like. There’s your lovely picture in the middle, and there are a couple windows, or “dialogs,” floating around. The one on the left is your toolbox, and the one on your right is your layers.
If your layers are ever missing, click Windows -> Dockable Dialogs -> Layers in your lovely picture window.
Okay, try out these steps.

1. In Layers, right-click on the thumbnail of your picture, and select “Add Alpha Channel.”

2. Now duplicate your layer.

...and (4) click your image to flip it!

3. Head to the toolbox. Select the Flip tool ...

Now, what we’ve just set ourselves up to do is to use these two mirror-image layers to force a sort of fake 360-degree view out of this image.

In Layers, click on the top layer to select it. In your toolbox, select the eraser tool. Now on your picture, erase a narrow strip at one of the sides, from the top all the way to the bottom. (Turn the page and look at the pictures to see what I mean. Then come back here.)

You’ve revealed a tiny bit of the layer beneath, and it is a mirror-image of the far side of the top layer. See what’s going to happen now when you planet-ize it again? Like touches like. Now you just have to futz with it to make it look okay. This is artful playfulness and there are no great rules or tips for this step. Erase a bit here and a bit there until it looks reasonably blended and natural. If you can see there’s a path or a building or something under where you’re erasing, try to expose it in a natural-looking way. Be bold. Be creative. Ctrl-Z = undo. Ctrl-Z is your friend.

When you’re satisfied, or if you want to see how it’s going to look, then merge the layers down, and distort the image back into polar coordinates. You might see something you want to tweak further. That’s cool. Ctrl-z the polar mapping, and Ctrl-Z the layer merging, and keep working.
Eraser!

Set 100% opaque to start. Later try turning opacity way down to soften around the hard edges.

Size up to about a hundred

Play around with hard vs. fuzzy brushes. You’ll probably want to use a little of each.

Before erasing.

After erasing one strip

And after working on it a little bit. The edges are mirrors, and it only looks a little bit weird. Success!
Right-click on the top layer, and then “Merge Down” before adding the polar cords distort again.

Rotating the planet
An easy adjustment. After you turn your pano into a planet, spin it around with the Rotate tool until you like its orientation.

Messing with the sky
Click on Image -> “Autocrop Image.” Now you’ve got a nice, tight frame.

Use the Color Picker tool on a part of the sky where you like the color, and then use the Bucket tool to fill in the transparent parts at the corners.

You can use the Fuzzy Select Tool to select the whole sky, and then use a large Paintbrush to color it all in as one color. Leave it like this if you want. Or maybe you want to select the whole sky and delete it so your planet is floating on a transparent background. That way you can add different backgrounds like a field of stars. Or maybe a giant you, with the planet in the palm of your hand. Oh man, yeah, that’d be rad.

You’re done! What next?
Make a bunch of tiny planets!
Look up some GIMP tutorials on youtube. What else can you do?