

3-D Printable Face Objects for Lip Sync

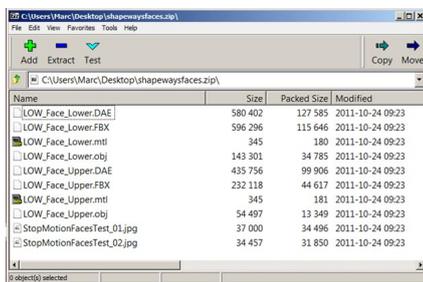
Written by Marc Spess

Monday, 24 October 2011 09:11 - Last Updated Thursday, 27 October 2011 12:23



Stop motion fan and 3d generalist (as he likes to be called) Marshall Miller is offering free 3-D head objects for use in replacement stop motion lip sync and expression. With the advent of 3-D printers such as used in the film Coraline, 3-D replacement parts are more than just a curiosity. They are a convenient way of making replacement animations with a high grade of accuracy.

Why is this important? Well for one, you can replace a mouth with a new mouth that will fit in the exact same spot as the previous mouth. That will give you a seamless and concise pose from one to the next with less jitters and strobing than by sculpting and molding alone.



So to use these mouths you will need to [download the file set here](#) . [Unzip them with 7-Zip](#) if you can't open the download on your computer. The objects are made in 1:6 scale or for figures that are human in proportion at 12 inches tall.

Here is a list of what the file extensions mean and what they do:

- Dae is a COLLADA format. Basically an all purpose format used for web graphics and transferring between programs. - Fbx is an Autodesk generic format, basically it replaces

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.3ds. can read it, materials for the object. The face doesn't have any materials really, but if someone made a color map for it and wanted to print using a plastic that is multi-colored they would export an obj and an mtl out of their 3d program, zip them up and upload them to the printing service.

- Obj is a Lightwave generic format, most 3d packages
- Mtl goes with the obj and is the

Next you need to have the mouths printed through [a company like Shapeways here](#) . All you need to do is upload the proper files included in the zipped file. According to Marshall, you can print the faces [even cheaper at Ponoko](#) , for about 1.75 a piece.



If you are new to the idea of 3-D printed parts, here's a brief video showing how it's done:

{youtube}IM8WU8JfyI8{/youtube}

After receiving your mouths [from Shapeways](#) you will need to create a head armature to accept the replacement upper head brows and lower faces. This can be done by pressing the parts into clay and carefully prying the faces off again. Make a mold of this clay ball and cast it in something like Alumilite resin and you will not have a key. From here you can grind out the area where the teeth will go to add sculpted teeth. You can also hollow out where the eye balls fit with a dremel tool and insert small spherical eyes, held in place with clay or stiki wax.

To alter the phoneme ([mouth positions](#)) of these 3-D parts you can add clay over the printed parts and mold them. You can use epoxy putty or [Sup](#) [er Sculpey](#) to alter the mouths and brows too or use them as-is.

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