

# A 3D Printed Flying Saucer

In a sudden fit of creativity, I decided I needed a flying saucer. A little one. A big one would be nice but I don't have anywhere to park it. This sudden desire to design and build a little flying saucer was probably a result of too much time 3D printing various sci-fi themed projects together with having run a bunch of stop motion animation workshops as part of my contract developing STEMM programs for the local libraries.

## About the Flying Saucer.

It is a two seater with, admittedly, limited cargo capacity but featuring the latest in styling! Just look at the fancy wrap around control panel with a fully *digital* system management display inset into an exactly curved dash that contrasts stunningly with the blocky structure used elsewhere.

Getting down to the good stuff, the perimeter is punctuated by five sensor ports fitted with the latest sensors for detecting things. The tail end is also fitted with two large and excitingly retro styled thrusters for boosting the vehicle along at a worryingly reckless speed. In order for any flying saucer to levitate and make spacial jumps, it needs a *Spatchcock Flange*. This little vessel features a fully external *Spatchcock Flange* allowing the *gravitational distortion* to achieve a very uniform enclosure of the ship.



## A bit about Spatchcock Flanges

The diagram below shows a variety of other flying saucers pointing out the different locations and styling of the Spatchcock Flange. The absence of a *Spatchcock Flange* is a sure way of identifying fake flying saucer images.

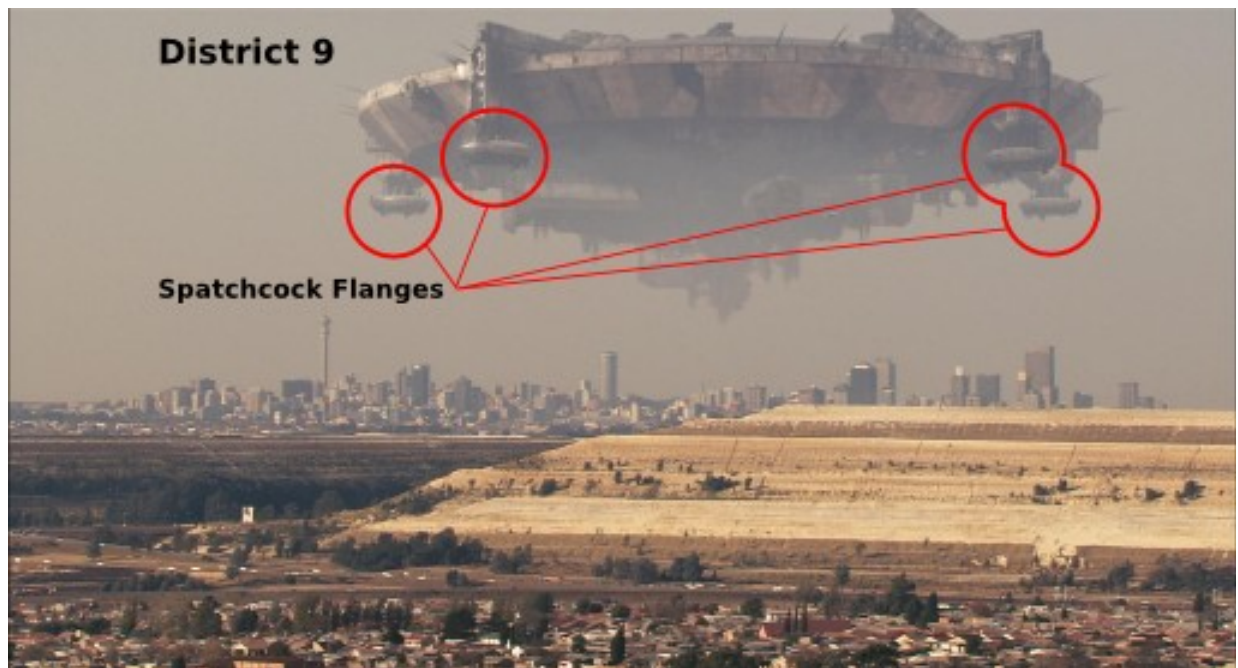


A variety of flying saucers. Can you identify the hoax? Yes, it is the one that looks like a hubcap that doesn't have any glowy bits.

If you have read any of [Dominic Green's "Ant and Cleo"](#) series you will already be familiar with *Spatchcock Flanges* and the common components of flying saucers. While Green's general descriptions are excellent, he has taken some liberties when he describes the time distortion effects around old and damaged *Spatchcock Flanges*. In reality there is no such effect. Approaching a damaged *Spatchcock Flange* will not cause you to regress to being an infant or any other problems associated with *chrono-leakage*. Most of the gravitational distortion effects from the operation of a *Spatchcock Flange* are from a directed *Norff-Effect* where coupled quantum pairs are independently acted upon by an intense magnetic flux. These induce an

out of balance excitation on the pair. The forced mismatch in the states of the members of the quantum pair is expressed as a controllable gravitational distortion.

Typically a flying saucer will only require a single Spatchcock Flange. In the case of very large flying saucers several spatchcock flanges may be required. An example of this is the “Prawn’s” mothership that features in “District 9”.

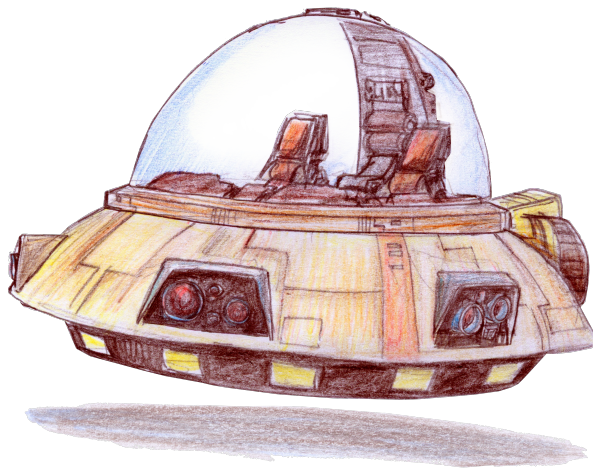


## Inspiration

The inspiration for this model was a small flying saucer that featured in the particularly messy “Petey and Jaydee” videos. A small flying saucer model designed to be flown by a small character who was interacting with the human-size world was an appealing idea for a simple stop motion animation exercise. It had been a toss up between something like Petey and Jaydee’s flying saucer and Krypto’s from “Destroy all Humans”. In the end it was the mini-like style of Petey and Jaydee’s that determined the design direction I followed.







The final size was dictated by the size of dome I could obtain or create. As it happened I was able to make a reasonable 125mm diameter dome. I have described the process here:

<http://www.techmonkeybusiness.com/vacuum-formed-thin-plastic-domes.html>

The design was done in Blender. The original .blend file is included in the zipped up model files linked later in this project description.

The finished model was assembled using an epoxy resin. A thinner and slightly flexible craft glue was used to hold the dome on the windshield ring. So that the windshield can be opened, the windshield ring is pinned at the back with a short rod of about 1.5mm diameter. There was a bit of drilling required to get this installed and the holes aligned properly. The five small detailed bits in the recesses around the perimeter of the saucer cover holes where dowels can be inserted to support the model when "flying". I used bluetack to hold these in place so they could be removed when access was needed to the dowel sockets.

A nut is embedded in the underside of the flying saucer body and the Spatchcock Flange is screwed into this so that it can be turned during animation. A dot of glue was applied to end of the screw before it was threaded into the nut, to prevent from it loosening when the Spatchcock Flange is turned.

It was painted using the paint combinations described in my article on painting 3D Printed miniatures. <http://www.techmonkeybusiness.com/paint-selection-for-3d-printed-miniatures.html>. The base coat was a black metal etching primer, while the coloured coats were various water based enamel housepaints and student art paints.



