‘Space Island’ is a real proposal for the first commercial space station. The station will be built up using the large orange external fuel tanks of NASA’s Space Shuttle. Each tank has about the same space inside as a hollowed out Jumbo Jet.

The Space Island is a giant wheel of these tanks, connected to a central spine (again built from the same tanks). The station rotates, and in so doing, creates one-third of the gravity found on earth. The tanks in the middle are not exposed to this effect, so they experience true zero gravity.

Here we’re looking at what a zero gravity TATE gallery module for the station might be like.

The gallery is divided into three zones:

In ZONE 1, the visitor passes through the middle of a chamber where they can be totally surrounded by artworks that float freely around them. Depending on the materials used (for example, chunks of rock, or blobs of paint), you might want to have a protective tunnel for the viewer!

ZONE 2 is a totally wrap-around space — it has a single curved surface that might be used for projections or painting. Like in space itself, there is no ‘up’ or ‘down’ orientation, inviting artists to think about new forms of composition, creating images stretching in all directions with no edges. After all, there is no way for the artist to know which way up the viewer will be.

ZONE 3 has two ‘cog’ shaped chambers. These cogs can rotate independently and at different speeds. The centrifugal force they generate as they turn creates a level of artificial gravity. The amount of gravity depends on the speed of the rotation. Artists could create works for specific gravitational strengths, or works that change in their form as the speed of the cogs (and the amount of gravity) changes.
Zone 1 (viewing tunnel) Stick this piece between the bottom end cap and Zone 2 to make a safety area for people viewing the floating artworks.

Zone 2 Draw a picture on this shape, then fold it up to make a wrap-around artwork.

Zone 3 (2 cogs) Make these strips into the cogs, adding your own artworks inside. How would changes in the strength of gravity affect them?

External Fuel Tank (note that this only makes half of the tank — otherwise you’d never be able to see inside!)