

HERSCHEL Space Observatory



Herschel was launched from the Guiana Space Centre in French Guiana at 13:12:02 UTC on May 14, 2009, aboard an Ariane 5 rocket, along with the Planck spacecraft.

The Herschel Space Observatory was a space observatory built and operated by the European Space Agency (ESA). It was active from 2009 to 2013, and was the largest infrared telescope ever launched, carrying a 3.5-metre (11.5 ft) mirror and instruments sensitive to the far infrared and submillimetre wavebands (55–672 μm). Herschel was the fourth and final cornerstone mission in the Horizon 2000 programme, following SOHO/Cluster II, XMM-Newton and Rosetta.

The observatory was capable of seeing the coldest and dustiest objects in space; for example, cool cocoons where stars form and dusty galaxies just starting to bulk up with new stars. The observatory sifted through star-forming clouds—the "slow cookers" of star ingredients—to trace the path by which potentially life-forming molecules, such as water, form.

Herschel specialised in collecting light from objects in the Solar System as well as the Milky Way and even extragalactic objects billions of light-years away, such as newborn galaxies, and was charged with four primary areas of investigation:

- ☒ Galaxy formation in the early universe and the evolution of galaxies;
- ☒ Star formation and its interaction with the interstellar medium;
- ☒ Chemical composition of atmospheres and surfaces of Solar System bodies, including planets, comets and moons;
- ☒ Molecular chemistry across the universe.

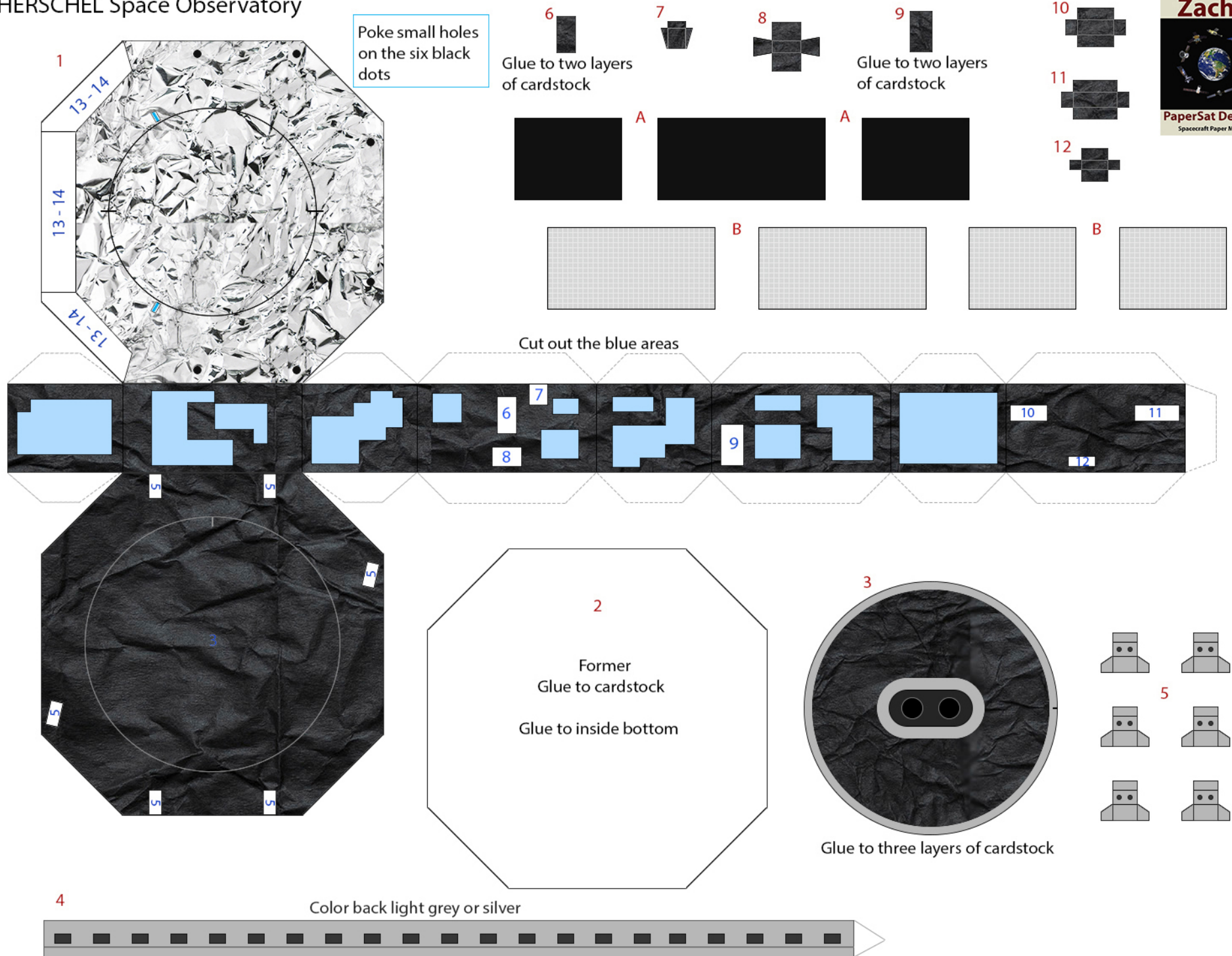
During the mission, Herschel "made over 35,000 scientific observations" and "amass[ed] more than 25,000 hours' worth of science data from about 600 different observing programs".

ESA's Herschel Space Observatory may have ceased its observations of the cosmos on 29 April 2013, but the intervening years have been a hive of activity as all teams involved in this great mission strove to provide the best calibrated data and new data products for the worldwide community of astronomers eager to explore new cosmic territory.

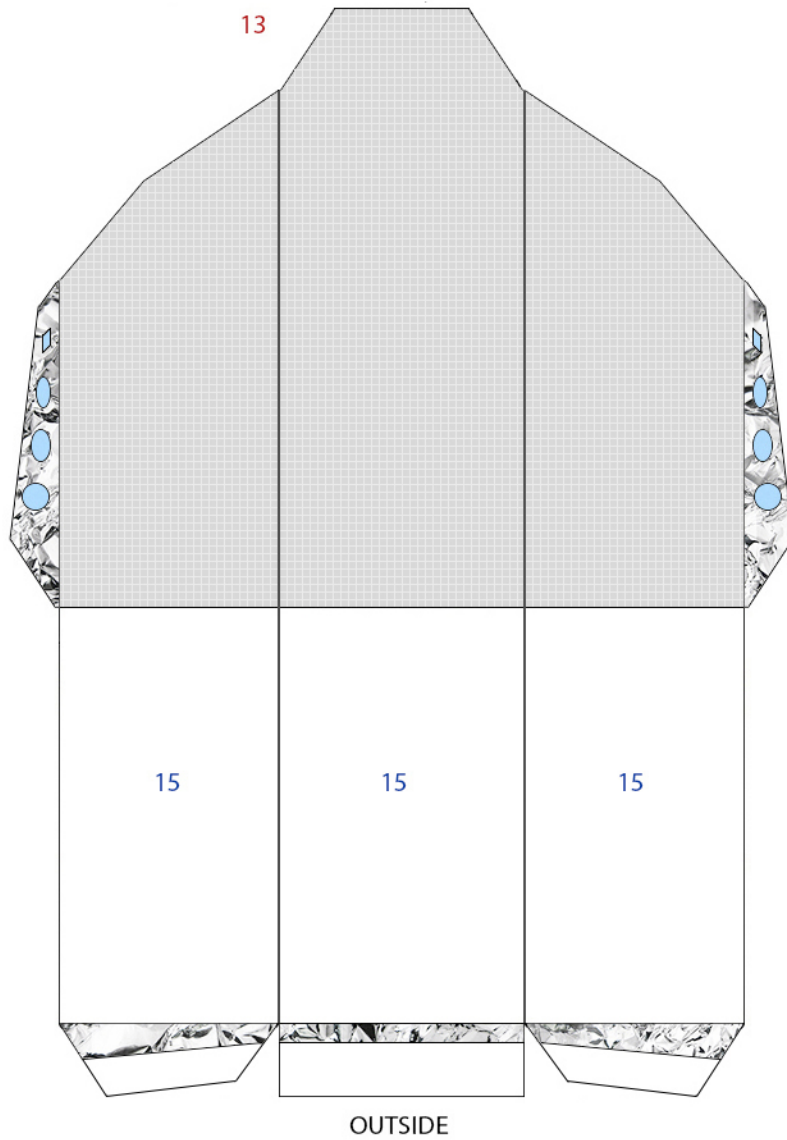
The largest, most powerful infrared telescope ever flown, Herschel stems from a long tradition of infrared space observatories such as the US-Dutch-British Infrared Astronomical Satellite (IRAS), ESA's Infrared Space Observatory (ISO), NASA's Submillimeter Wave Astronomy Satellite (SWAS) and Spitzer Space Telescope, the Swedish-led, international Odin satellite, and JAXA's Akari satellite.

Like its predecessors had done in the past, Herschel's discoveries have sparked great progress in the understanding of the cosmos, from the build-up of our Solar System to the formation of stars and the evolution of galaxies, but there are still many unanswered questions and, as always in science, a wealth of unanticipated questions has also emerged from the new discoveries.

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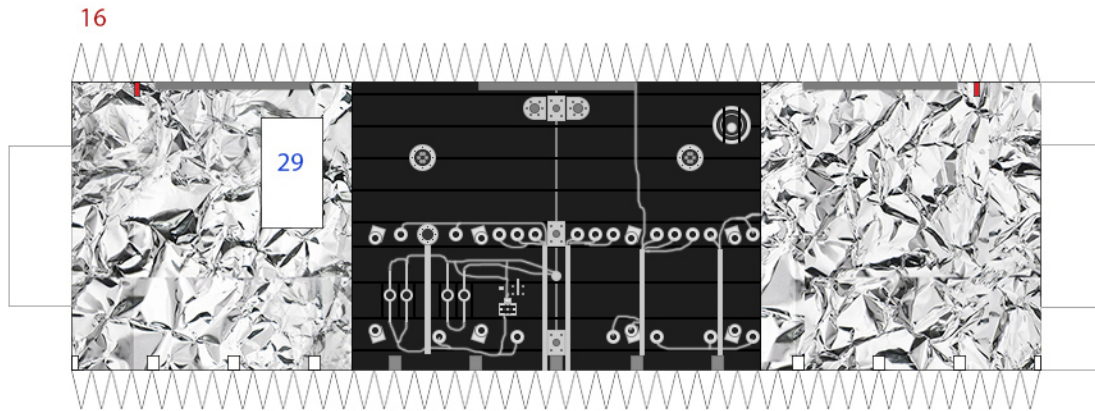


Cut out the blue areas
Glue these two back-to-back

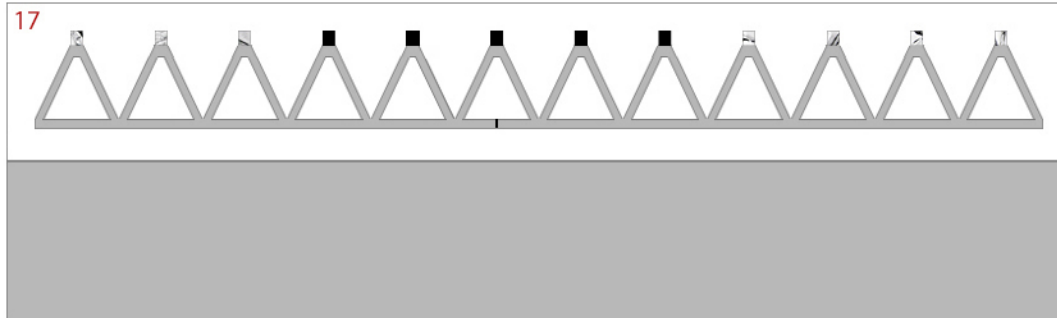
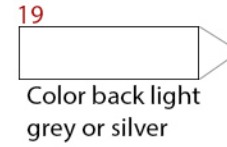
Cut two plastic broom straws - or similar material - for each of the lines below, colored light grey or silver



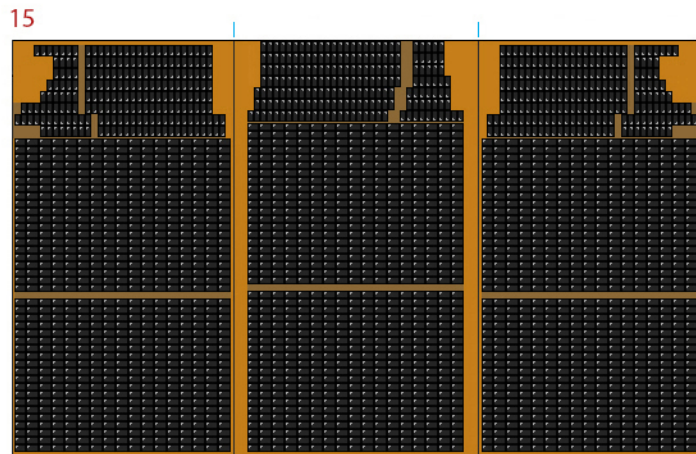
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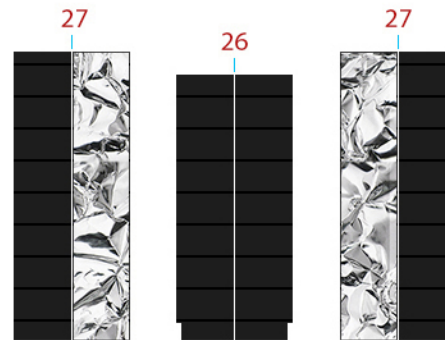
Cut out the blue circle



Fold-glue back-to-back for color on both sides



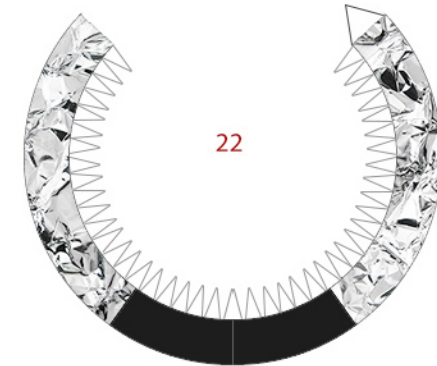
Fold at the blue lines



Fold-glue each back-to-back



TOP

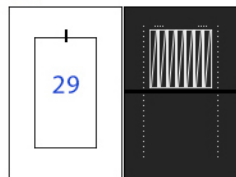


BOTTOM



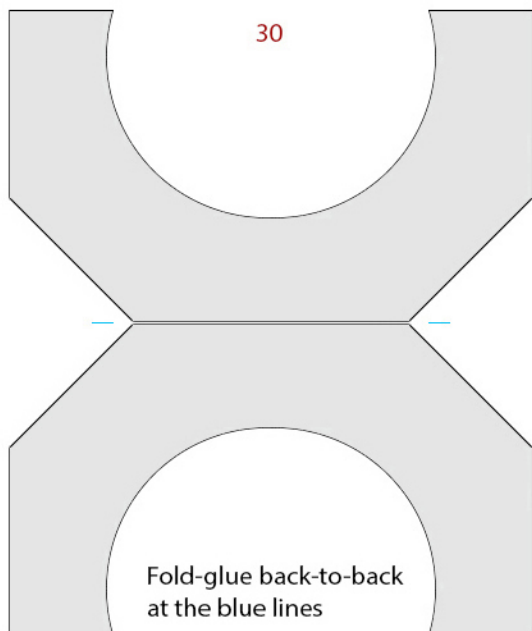
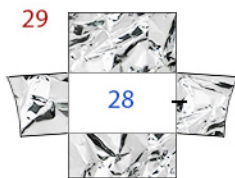
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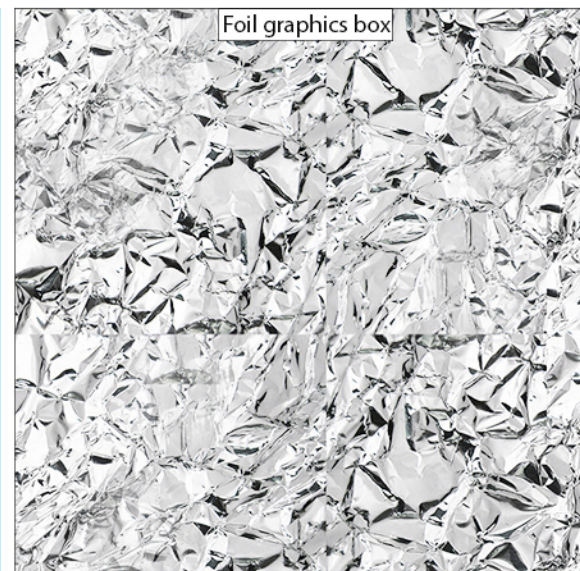
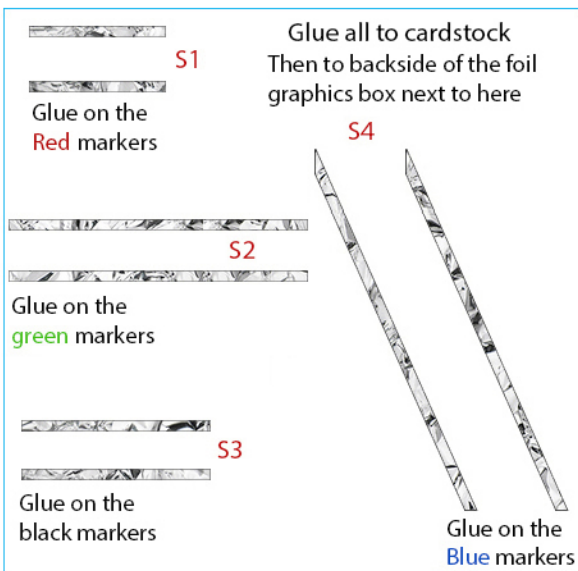


Fold-glue back-to-back

29



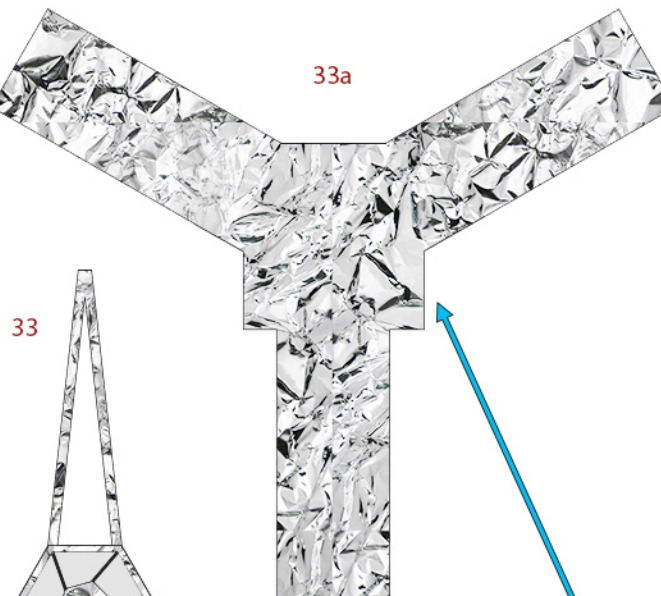
Fold-glue back-to-back at the blue lines



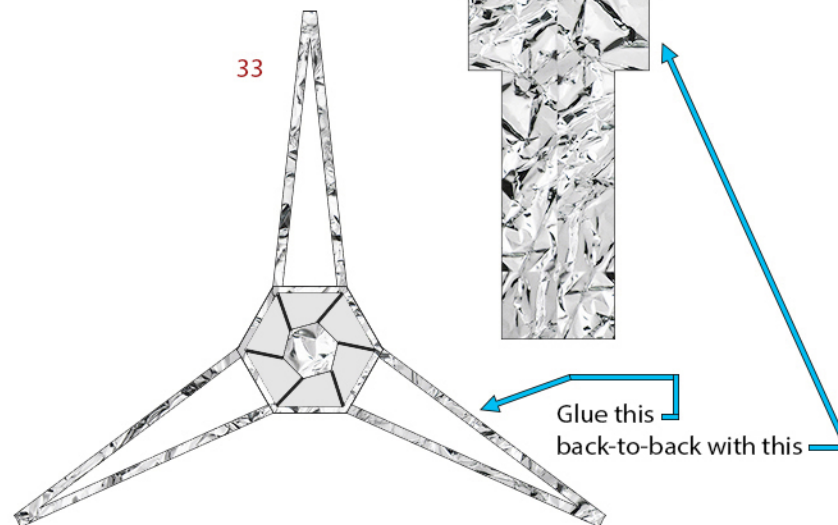
32



Glue to two layers of cardstock

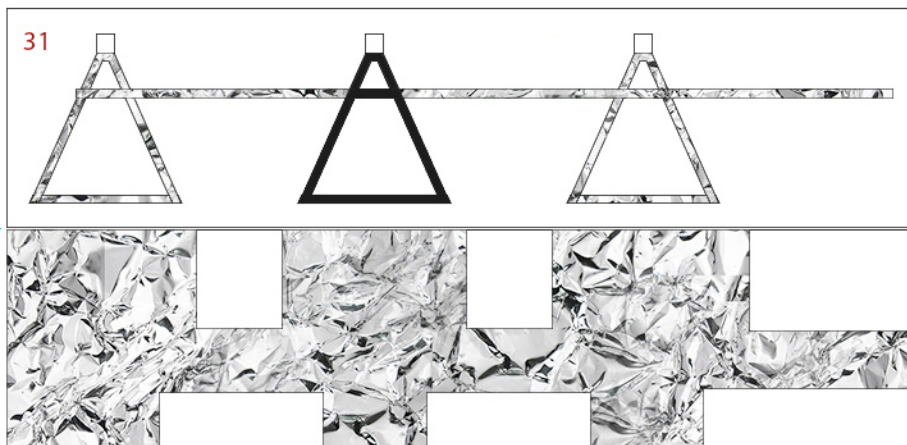


33



Glue this back-to-back with this

31

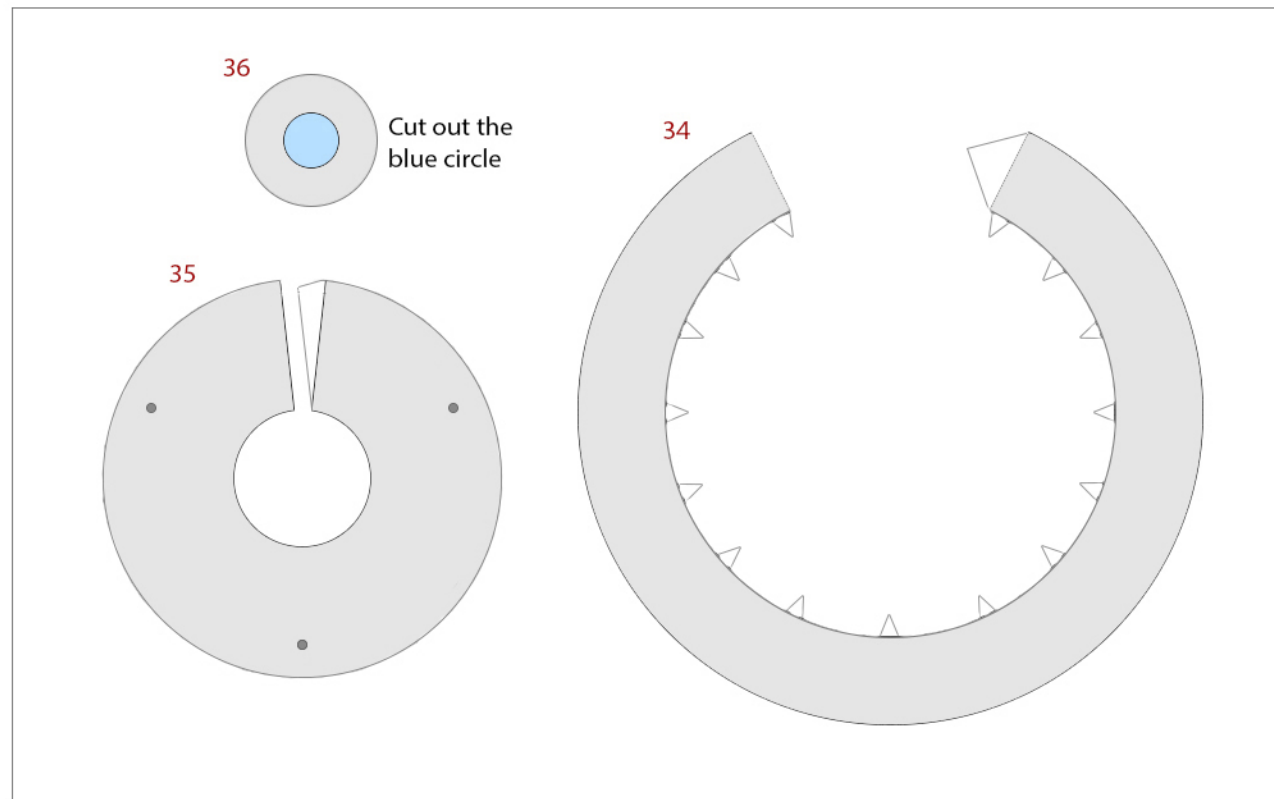


Fold-glue back-to-back for graphics on both sides

Zach's



Print the next page to the backside of this for graphics on both sides



Print this page to the backside of the previous page

