

Mariner 5



The Mariner 5 spacecraft was the fifth in a series of spacecraft used for planetary exploration in the flyby mode. Mariner 5 was a refurbished backup spacecraft for the Mariner 4 mission and was converted from a Mars mission to a Venus mission. The project objectives were to pass within 2000 km of Venus to provide data on the structure of the planet's atmosphere and its radiation and magnetic field environment. Mariner 5 was also designed to return data on the interplanetary environment before and after planetary encounter.

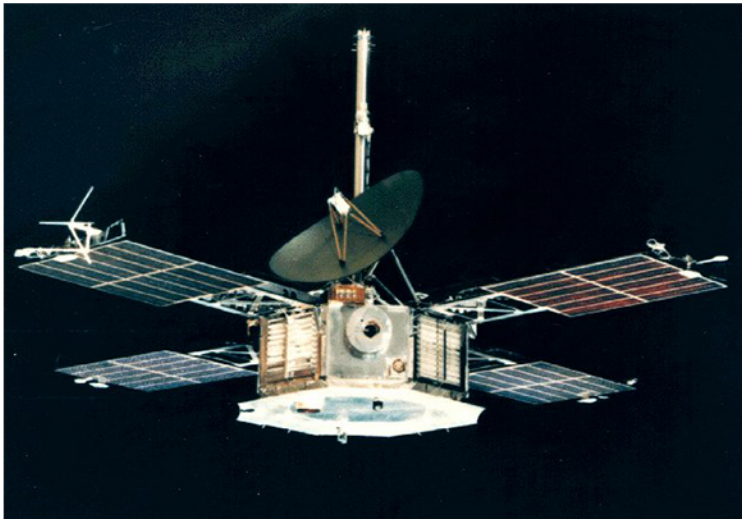
Mariner 5 was modified for the Venus mission by removing the TV camera, reversing and reducing the four solar panels, and adding extra thermal insulation.

Mariner 5 was launched from the Eastern Test Range of Cape Kennedy on an Atlas Agena Don 14 June 1967 at 06:01:00 UT. A mid-course correction (a 17.66 second burn) was made on 19 June.

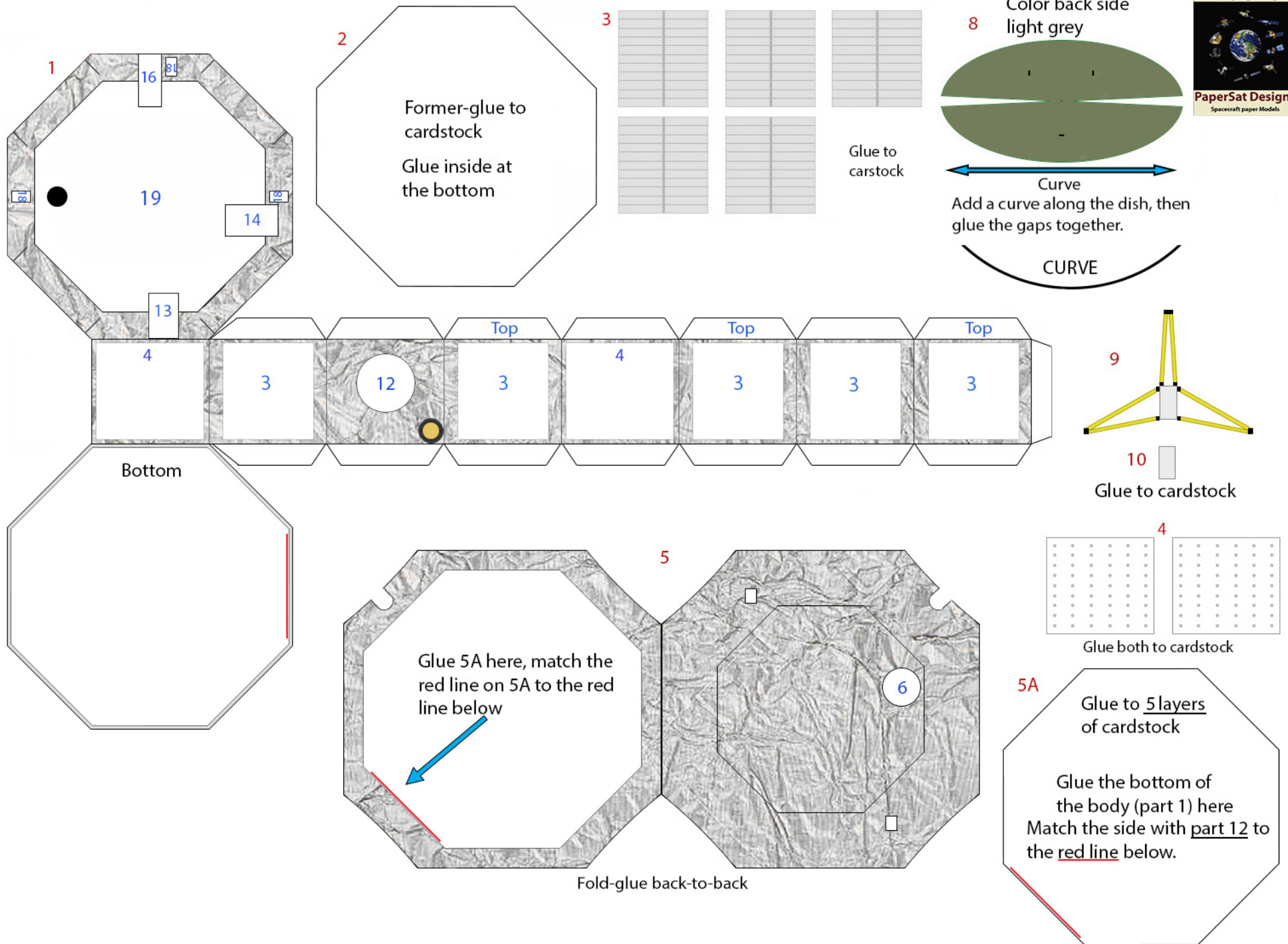
On October 19, after a 127-day flight from Earth, Mariner 5 flew within 3,990 km of Venus, becoming only the second successful Venus exploration mission in history. The spacecraft provided detailed information about the planet's atmospheric pressure (75-100 atmospheres) and temperature (527 °C), and found no trapped radiation belts around Venus as its magnetic field was only 1% as strong as Earth's. So despite Venus' similarity to Earth in terms of size, the spacecraft found a much different world, dispelling visions of Venus as a planet potentially hospitable to life.

Mariner 5 stopped transmitting on December 4, 1967, having completed its highly successful mission and significantly increasing our knowledge of Venus and its environment.

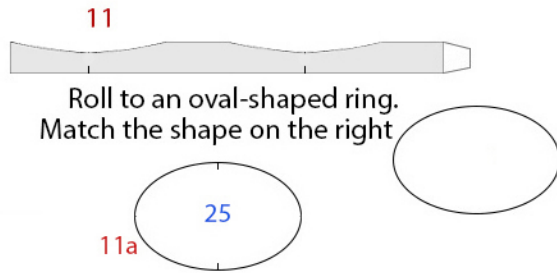
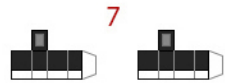
Without telemetry and without any signal change in response to commands, there was no possibility to repair or continue to use the spacecraft. Operations were terminated on November 5, 1968 and it is now defunct in a heliocentric orbit.



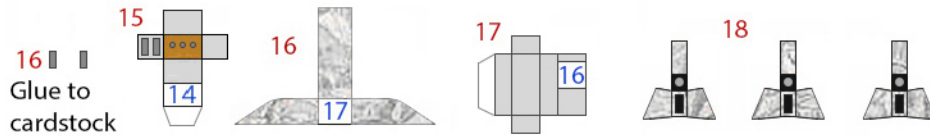
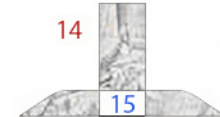
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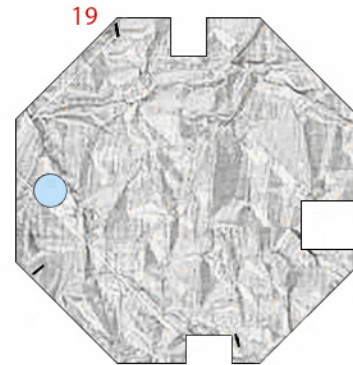
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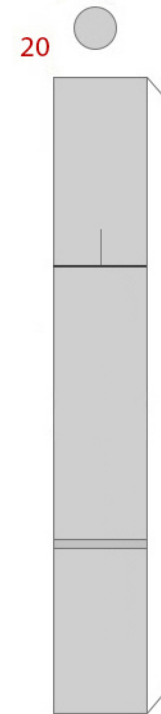
Roll to an oval-shaped ring.
Match the shape on the right



Glue to cardstock

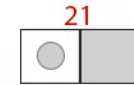


Glue to two layers of cardstock
remove the blue circle

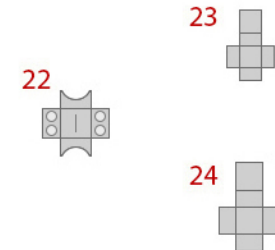


You can roll this into a long narrow tube, or glue around a BBQ skewer just under 3mm (0.12 inch or 0.3 cm) in diameter.

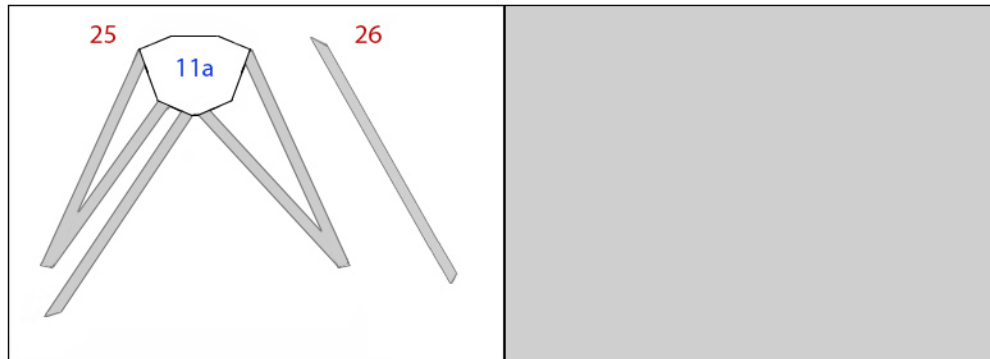
Need a small round ball around 3.5mm diameter colored light grey - or use the part below to simulate one.



Fold-glue back-to-back
cut out the disc



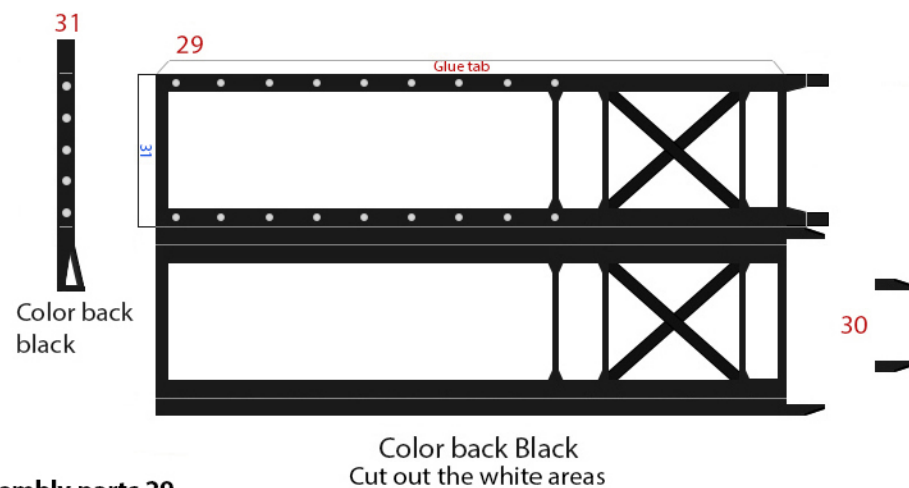
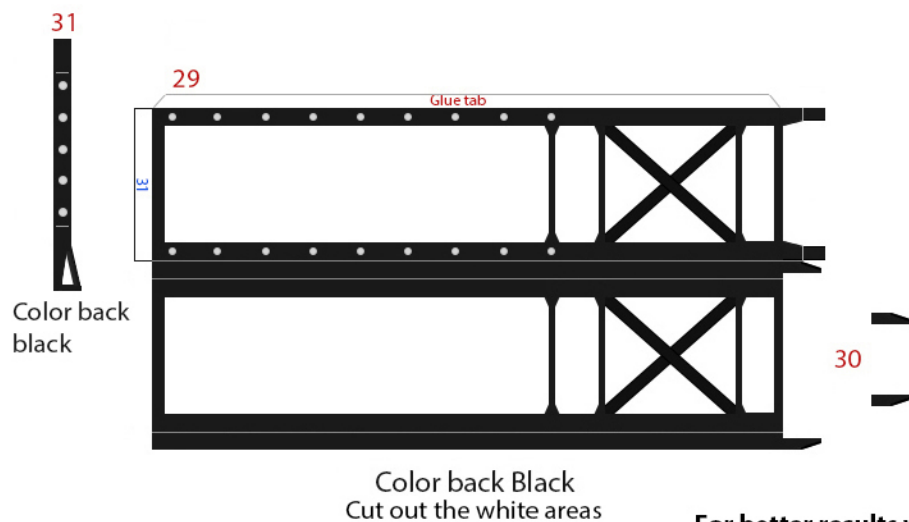
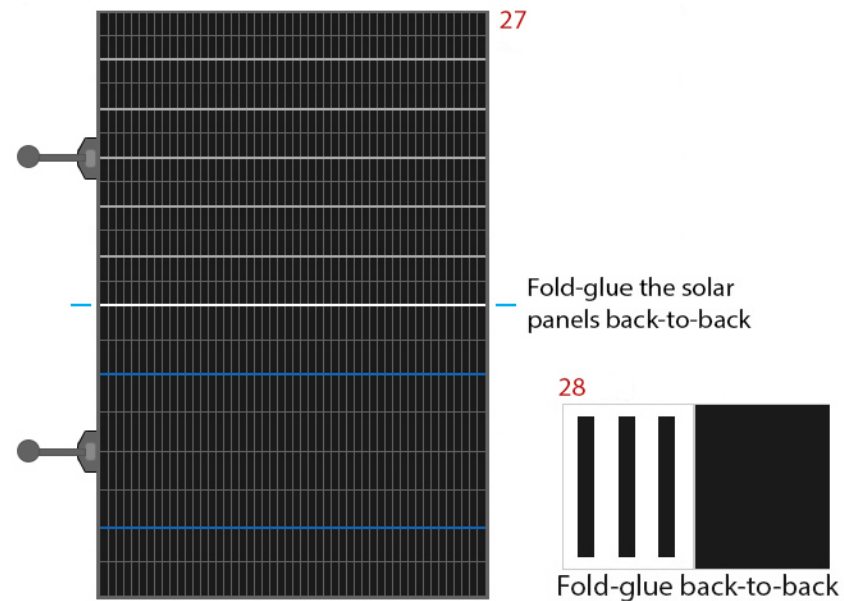
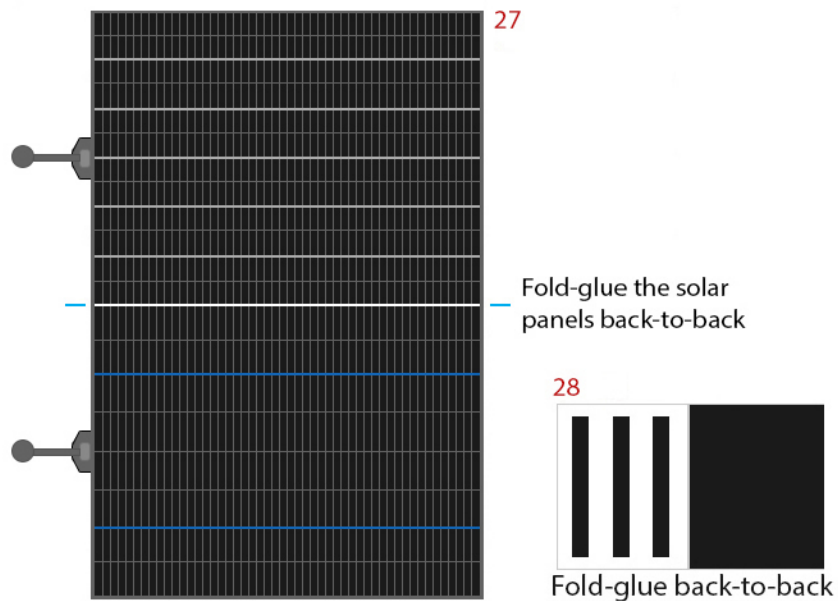
Fold-glue back-to-back, then cut out the two parts



Need plastic broom straw or similar material cut at the same length as the line below, colored light grey



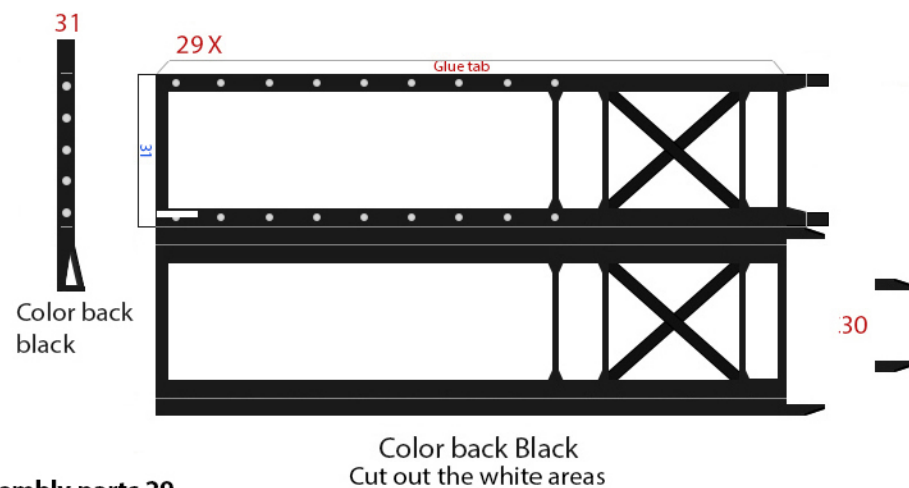
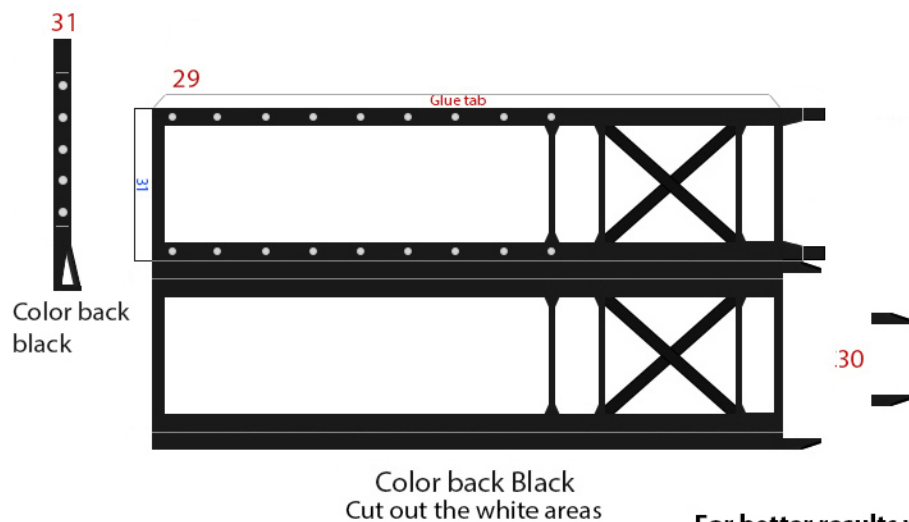
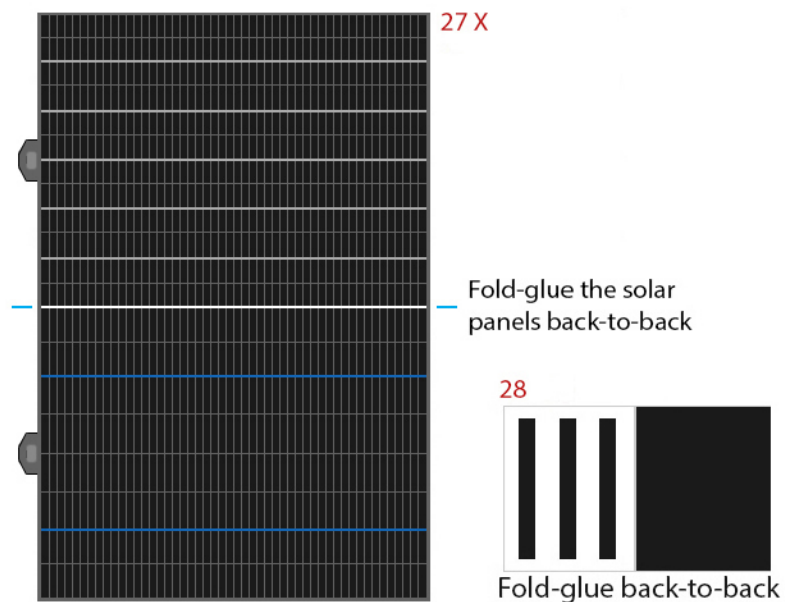
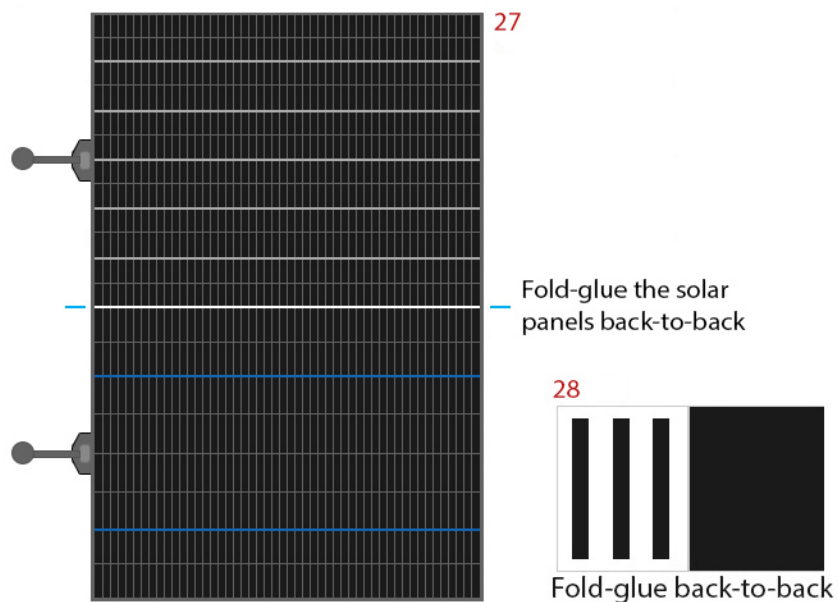
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For better results when assembly parts 29...

Score parts 29, cut out from the parts sheet
 Color back side black
 Fold into a long rectangular box including the glue tab
 color the white lines along the fold areas
 Unfold and cut out the white areas
 glue in parts 28 - see instructions
 Fold back into the long rectangular frame and glue together.

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