

GPM (Global Precipitation Measurement)



Global Precipitation Measurement (GPM) is a joint mission between JAXA and NASA as well as other international space agencies to make frequent (every 2–3 hours) observations of Earth's precipitation. It is part of NASA's Earth Systematic Missions program and will work with a satellite constellation to provide full global coverage. The project will provide global precipitation maps to assist researchers in studying global climate, improving the forecasting of extreme events, and adding to current capabilities for using such satellite data to benefit society. GPM builds on the notable successes of the Tropical Rainfall Measuring Mission (TRMM), which is also a joint NASA-JAXA activity.

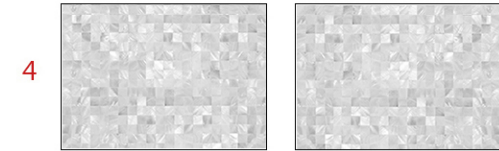
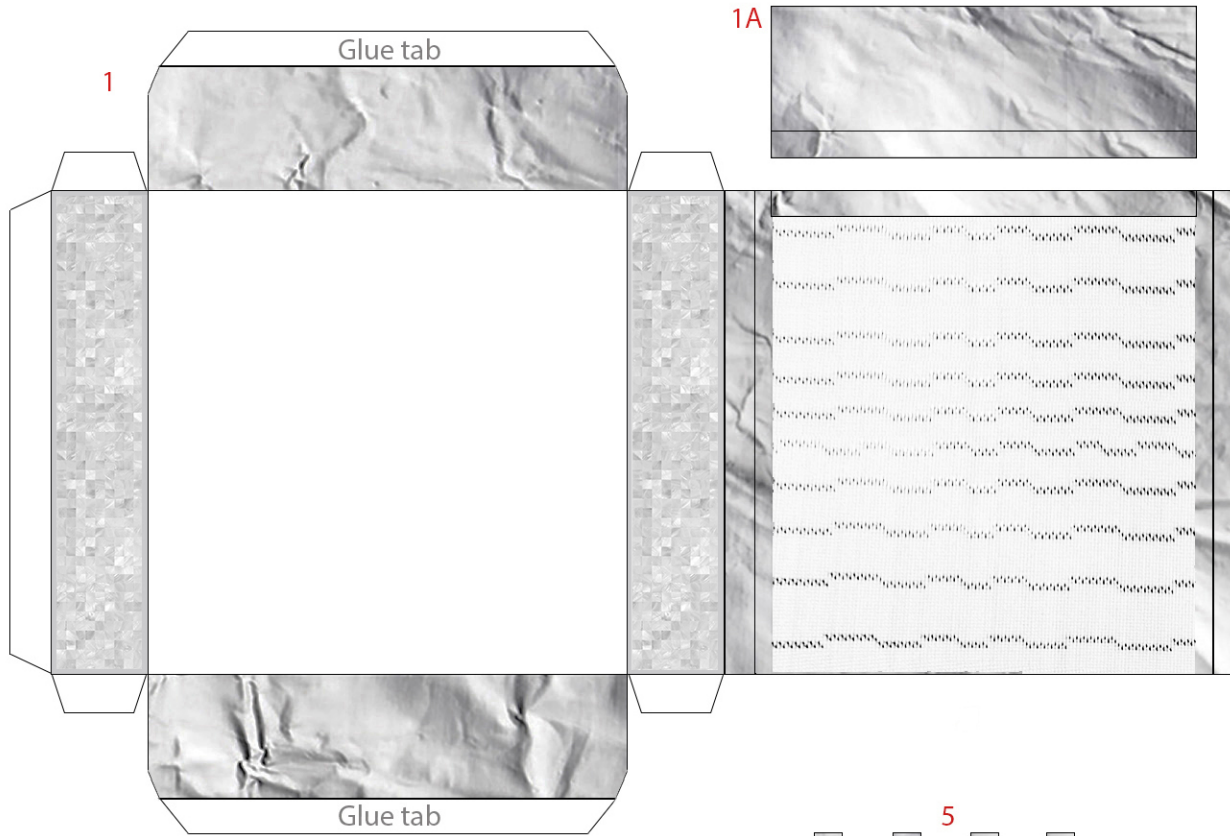
The center of the GPM project consists of a GPM Core Observatory satellite assisted by a constellation of spacecrafts (around 8) from other agencies and missions. The Core Observatory satellite will measure the two- and three-dimensional structure of Earth's precipitation patterns and provide a new calibration standard for the rest of the satellite constellation.



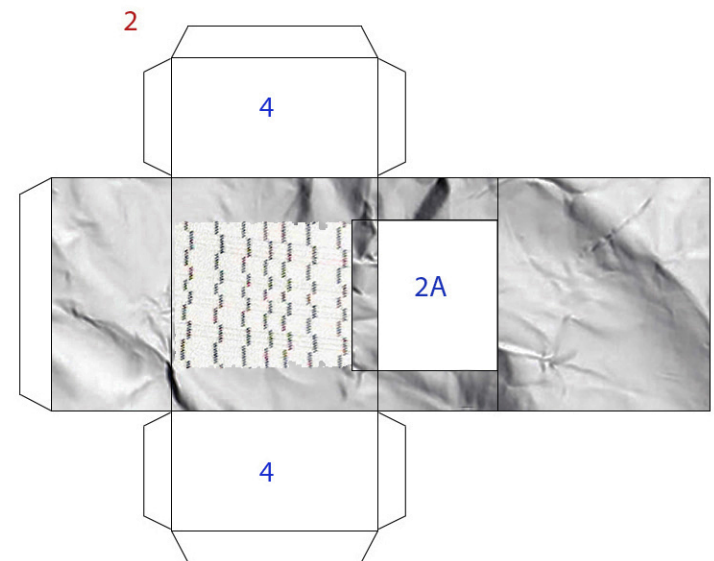
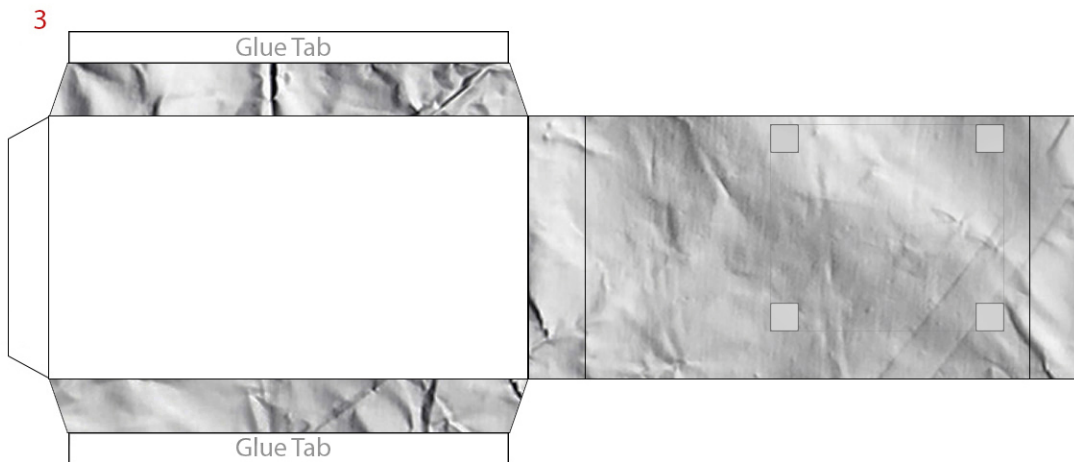
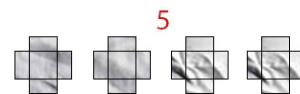
The GPM Core Observatory was assembled and tested at Goddard Space Flight Center, and launched from Tanegashima Space Center, Japan, on a Mitsubishi Heavy Industries H-IIA rocket. The launch occurred on February 28, 2014 at 3:37am JST . Agencies in the U.S., Japan, India and Europe operate the remaining satellites in the constellation for agency-specific goals, but also cooperatively provide data for GPM.

The objectives of the mission include the near-global measurement of precipitation, its distribution, cloud dynamics, rainfall processes and associated physical processes. These information provide insight into the global water cycle that is important in the study of climate change. Additional benefits of GPM include improvements in weather and precipitation prediction models, more advanced water resource prediction as well as models for for the prediction of flood hazards and fresh water management. Understanding the horizontal and vertical structure of rainfall and its different microphysical properties and achieving a high global sampling rate are key objectives of GPM.

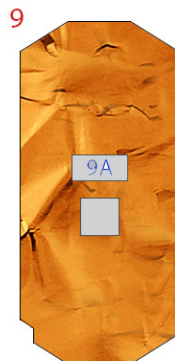
GPM (Global Precipitation Measurement)



Glue to another cardstock



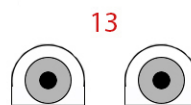
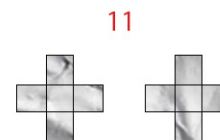
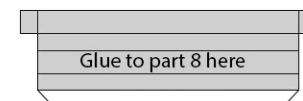
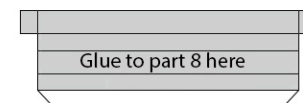
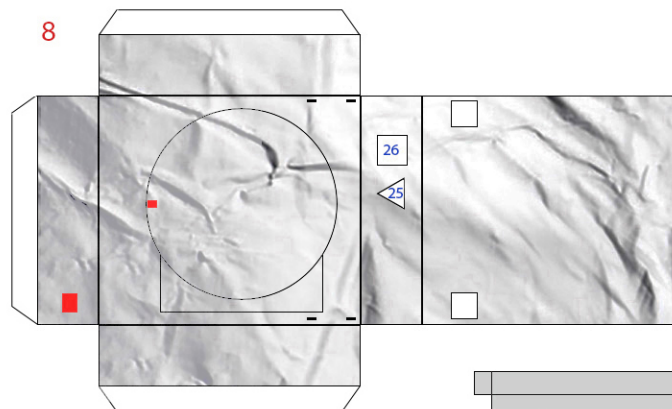
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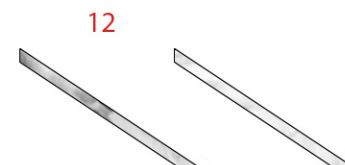
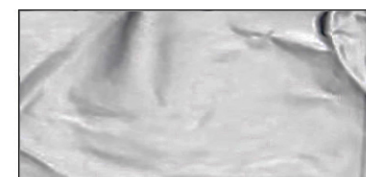
Glue to thick cardstock,
color edges grey.



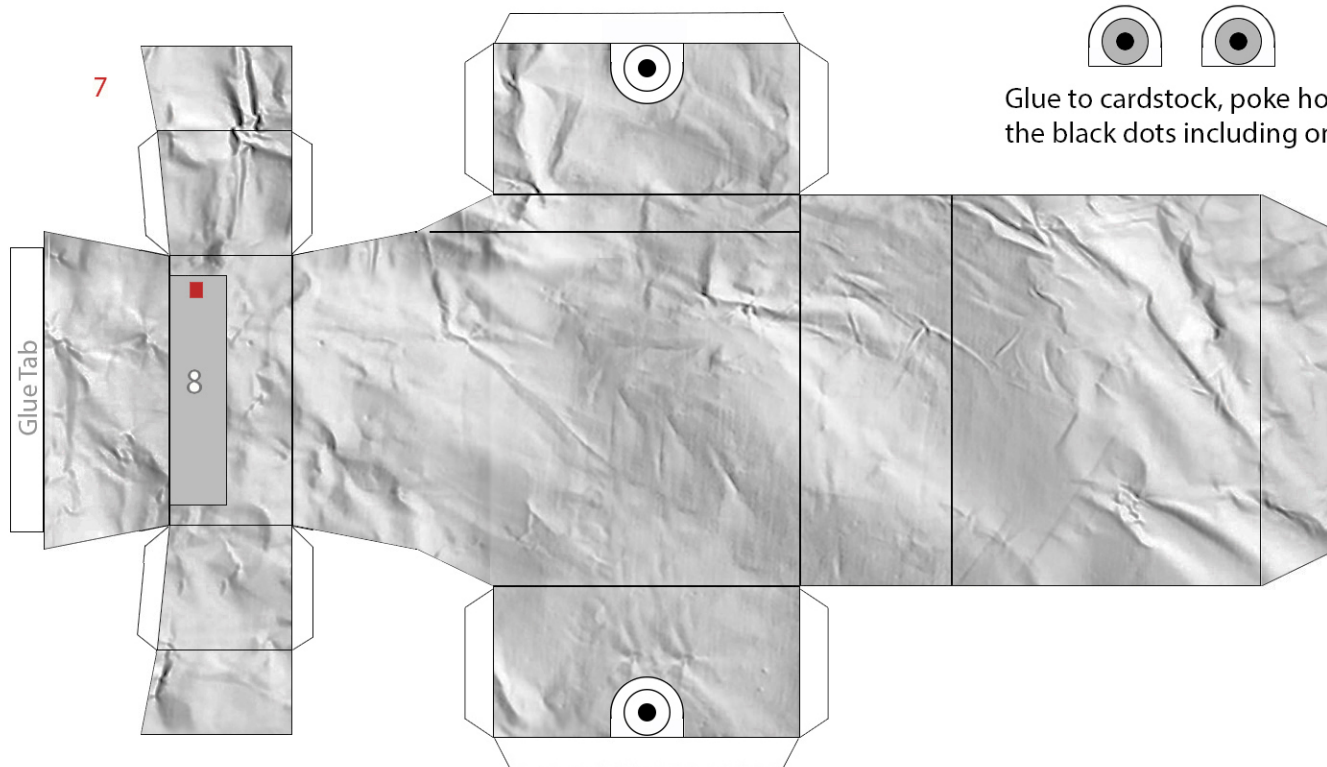
Glue to thick
cardstock



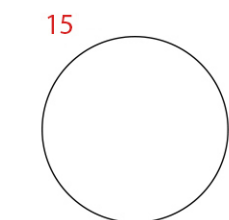
Glue to cardstock, poke holes on
the black dots including on part 7.



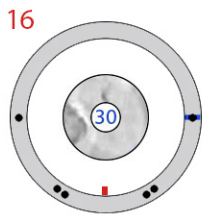
Glue 13 to BACKSIDE of the rectangle
for graphics on both sides, color edges
grey. For realistic look, use tooth pics,
cut at the same length and angle
colored grey.



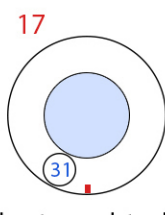
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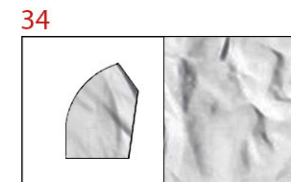
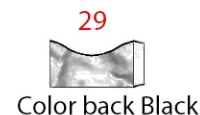
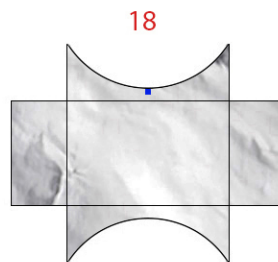
Bottom
Glue to cardstock, fits
inside the cylinder



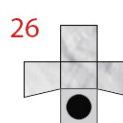
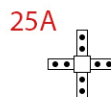
Top



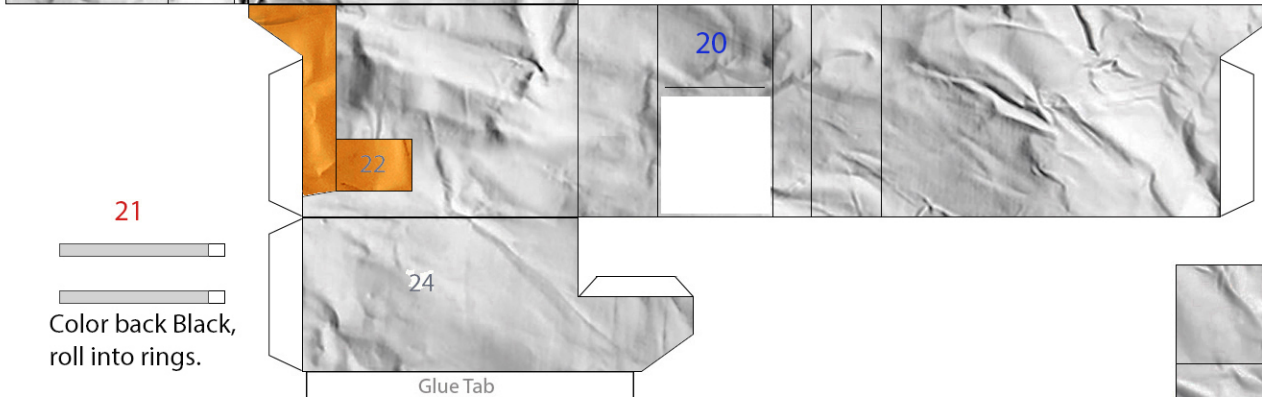
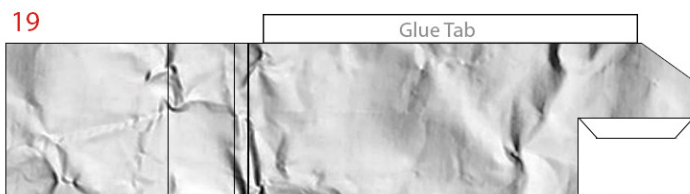
Glue to cardstock,
cut out the light
blue circle.



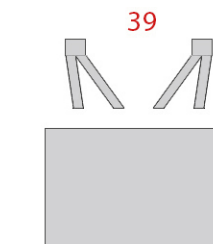
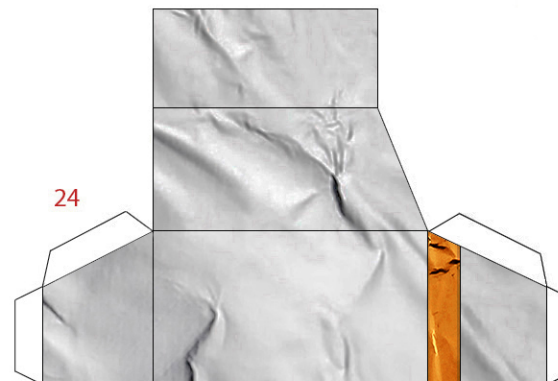
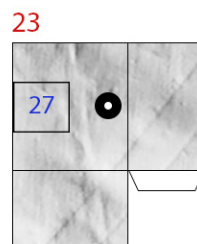
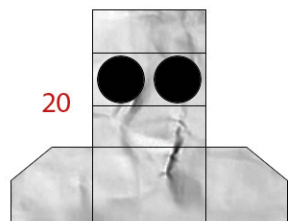
Fold back-to-back and
cut out for color on both
sides.



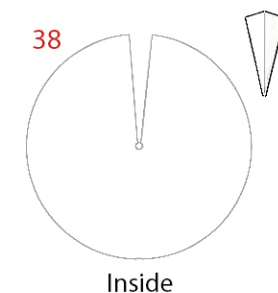
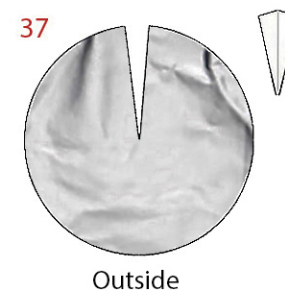
Need tooth pic cut at 5/8 inch or 15mm
long, colored silver for part 25.
Need Bamboo skewer cut at 1 1/8 inch or
29mm long, colored silver for part 26.
or you can roll grey paper to the same
dimensions.



Color back Black,
roll into rings.



Glue 39 to backside then
cutout, color edges grey.



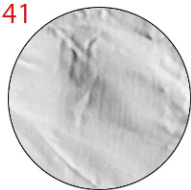
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40

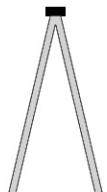


Color backside silver or grey.

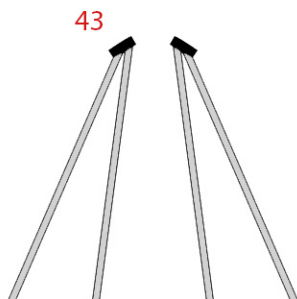
41



42



back struts



side struts

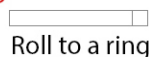
Glue these to thick cardstock, use super glue for stiffness.

Can also use plastic broom straws or music wire at proper diameter for a more realistic look, if so, use these as a glue pattern.

44

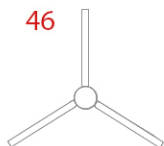


45



Roll to a ring

46



50

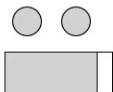


Roll to a ring

55

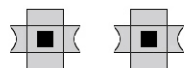


56

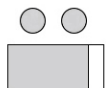


Roll to a tube

51

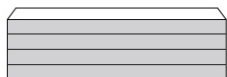


52



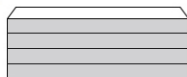
Roll to a tube

57



Top

58



Bottom

Score-fold these to long rectangle boxes or use square match sticks colored grey and cut at the same length.

53



54



Inside

Outside

59



Inside



Inside

60



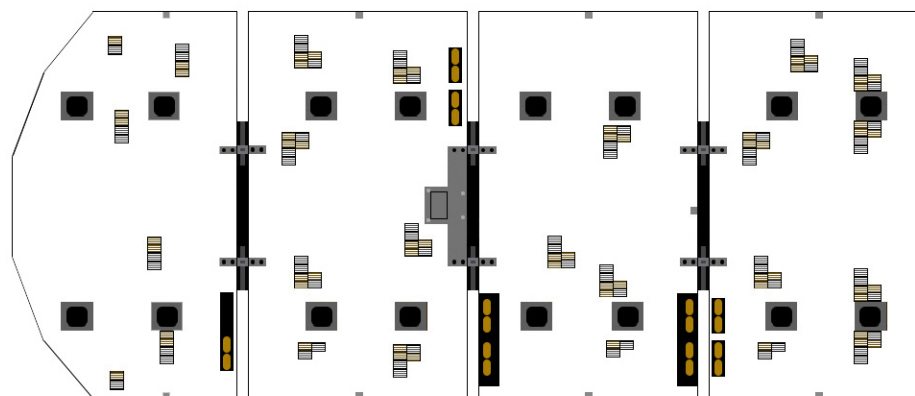
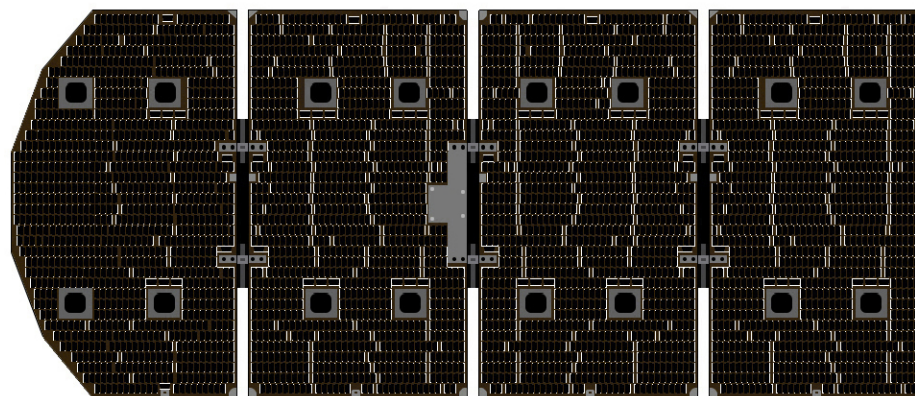
Outside



Outside

Need skewer or coat hanger wire - around 2mm diameter, cut at 7 1/8 inches long, colored WHITE.

Solar Array 1



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Solar Array 2

