

## DubaiSat-1



The UAE's first government satellite.

DubaiSat-1 is a remote sensing Earth observation satellite built by the Emirates Institution for Advanced Science and Technology (EIAST) to start the first Earth observation satellite program in the United Arab Emirates (UAE). The satellite was designed and developed by Satrec Initiative a pioneer satellite manufacturing company in South Korea, with a strong participation from EIAST engineers. DubaiSat-1 is a catalyst project and part of an in-depth technology transfer program to convey advanced satellites technology to the UAE.

DubaiSat-1 was launched into space on July 29, 2009 from the launch pad/base in Baikonour in Kazakhstan under the supervision of UAE engineers and scientists, who are responsible for more than a third of the project's implementation. Observers and analysts described the satellite's launch, a significant achievement for the UAE, as a product of the UAE's visionary leadership and efforts in enhancing knowledge and technological development, and embracing the latest achievements to position the UAE as the regional hub of the knowledge economy.

The structure of DubaiSat-1 is a cylindrical body of hexagonal shape featuring three deployable solar panels. The bus structure is referred to as deck-and-longeron type allowing easy assembly and dis-assembly. The bus dimensions are about 1.2 m in diameter and 1.35 m in height.

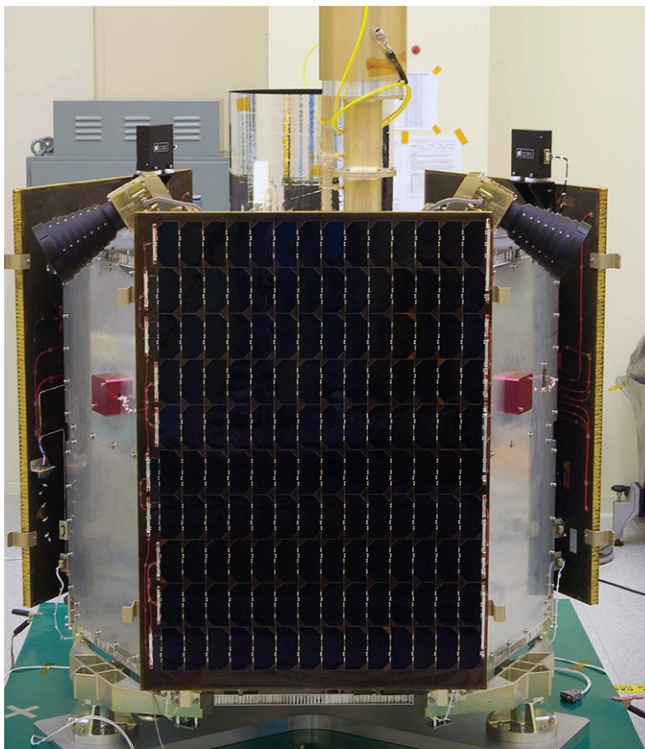
DubaiSat-1 observes the earth at a Low Earth orbit (LEO) and generates high-resolution optical images at 2.5m in panchromatic and at 5m in multispectral bands. These images provide decision makers in the UAE as well as EIAST clients with a valuable tool for a wide range of applications including infrastructure development, urban planning, and environment monitoring and protection.

DubaiSat-1 images are also useful for promoting geosciences and remote sensing research in the region, and for supporting different scientific disciplines in private and academic sectors.

DubaiSat-1 images have been used, to monitor progress on the Dubai World Megaproject, Palm Islands, and the Al Maktoum International Airport.

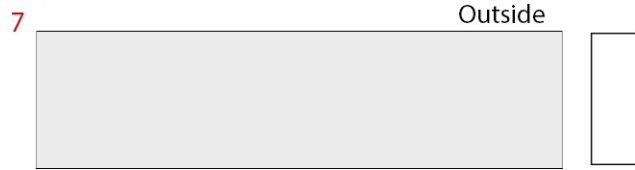
The United Nations also used DubaiSat-1 images to monitor relief efforts following the 2011 Tohoku earthquake and tsunami in Japan.

The DubaiSat-1 mission has come to the end on March 2017.

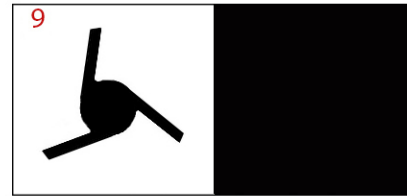




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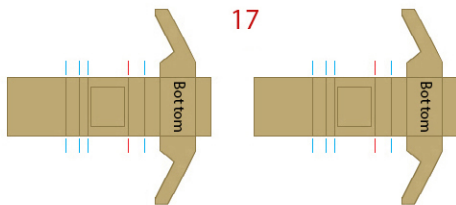
Roll with color INSIDE



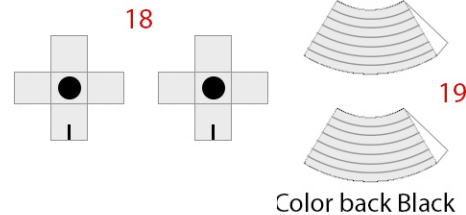
Fold-glue back-to-back



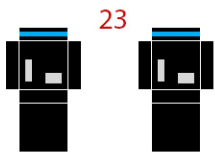
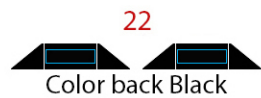
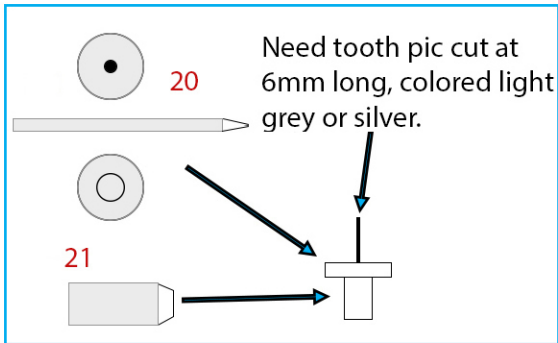
Color back black, roll to a tube



Fold at the **Blue Lines**  
Valley fold at the **Red Lines**

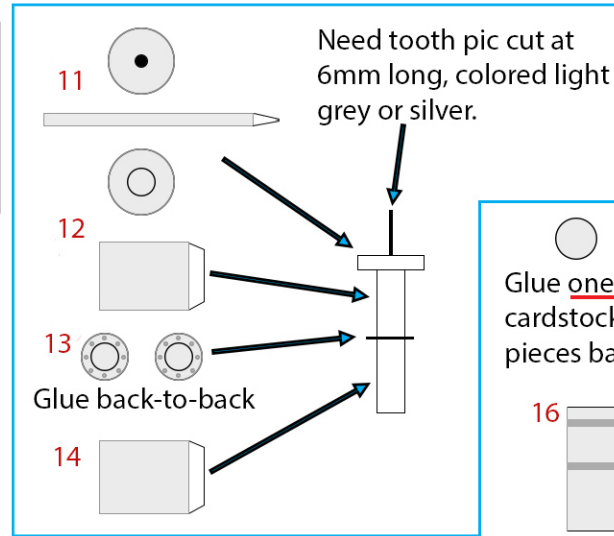
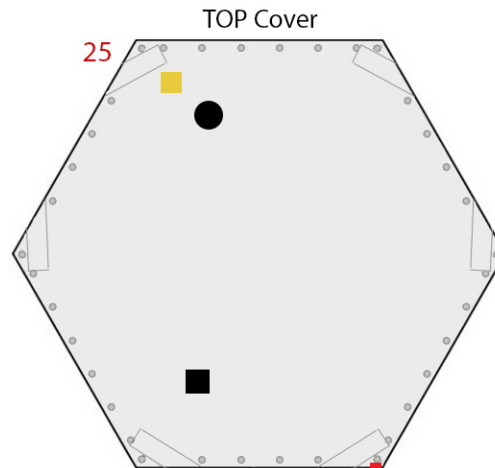


Color back Black



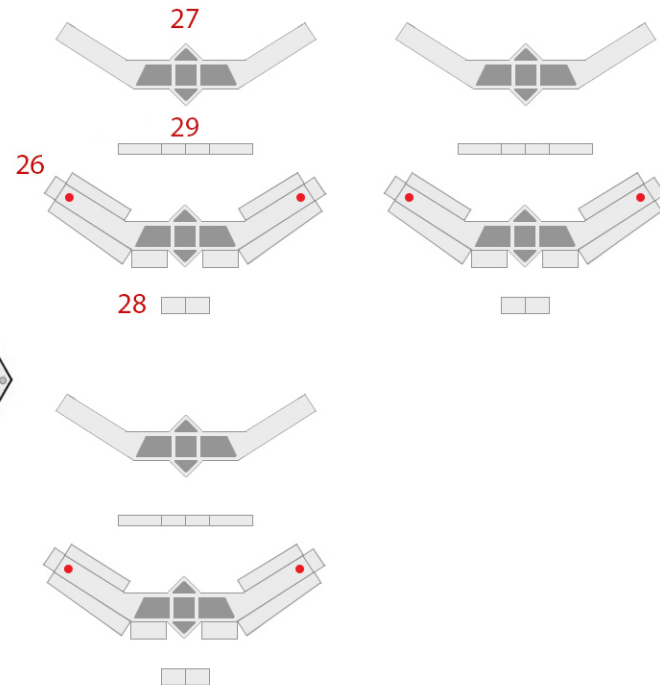
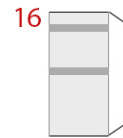
24

Score fold and glue back-to-back at the blue line



15

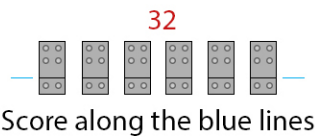
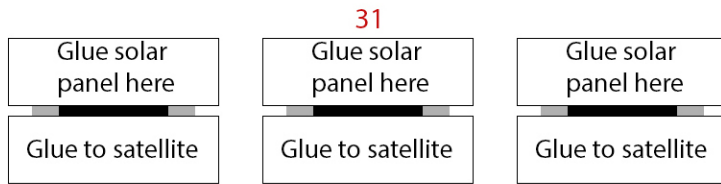
Glue one of these to cardstock, then glue both pieces back-to-back.



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## Solar panels

Glue each to a tab below, fold the solar panel in half and glue together.



30

