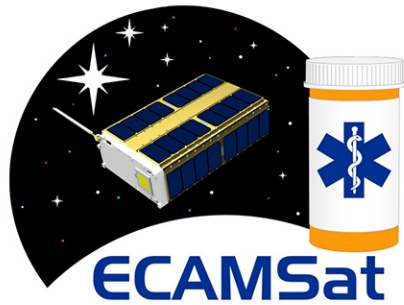


EcAMSat



NASA's first 6U CubeSat.

EcAMSat (E. coli AntiMicrobial Satellite) is a nanosatellite developed by NASA Ames Research Center.

The primary scientific purpose of the EcAMSat mission is to investigate how and whether space microgravity affects the antibiotic resistance of E. coli, a bacterial pathogen responsible for urinary tract infection in humans and animals. Bacterial antibiotic resistance may pose a danger to astronauts in microgravity, where the immune response is weakened. Scientists believe that the results of this experiment could help design effective countermeasures to protect astronauts' health during long-duration human space missions.

EcAMSat is being developed through a partnership between NASA's Ames Research Center and the Stanford University School of Medicine.

It will be the first NASA mission in the "6U Cubesat" configuration, with six times the volume of a single cubesat unit ("1U"). The 6U format enhances nanosatellite applicability for space missions by providing more power and volume for instruments, avionics, actuators and propulsion. The larger format improves payload accommodation and extends mission duration capabilities, while still retaining its ability to be launched as a secondary payload.

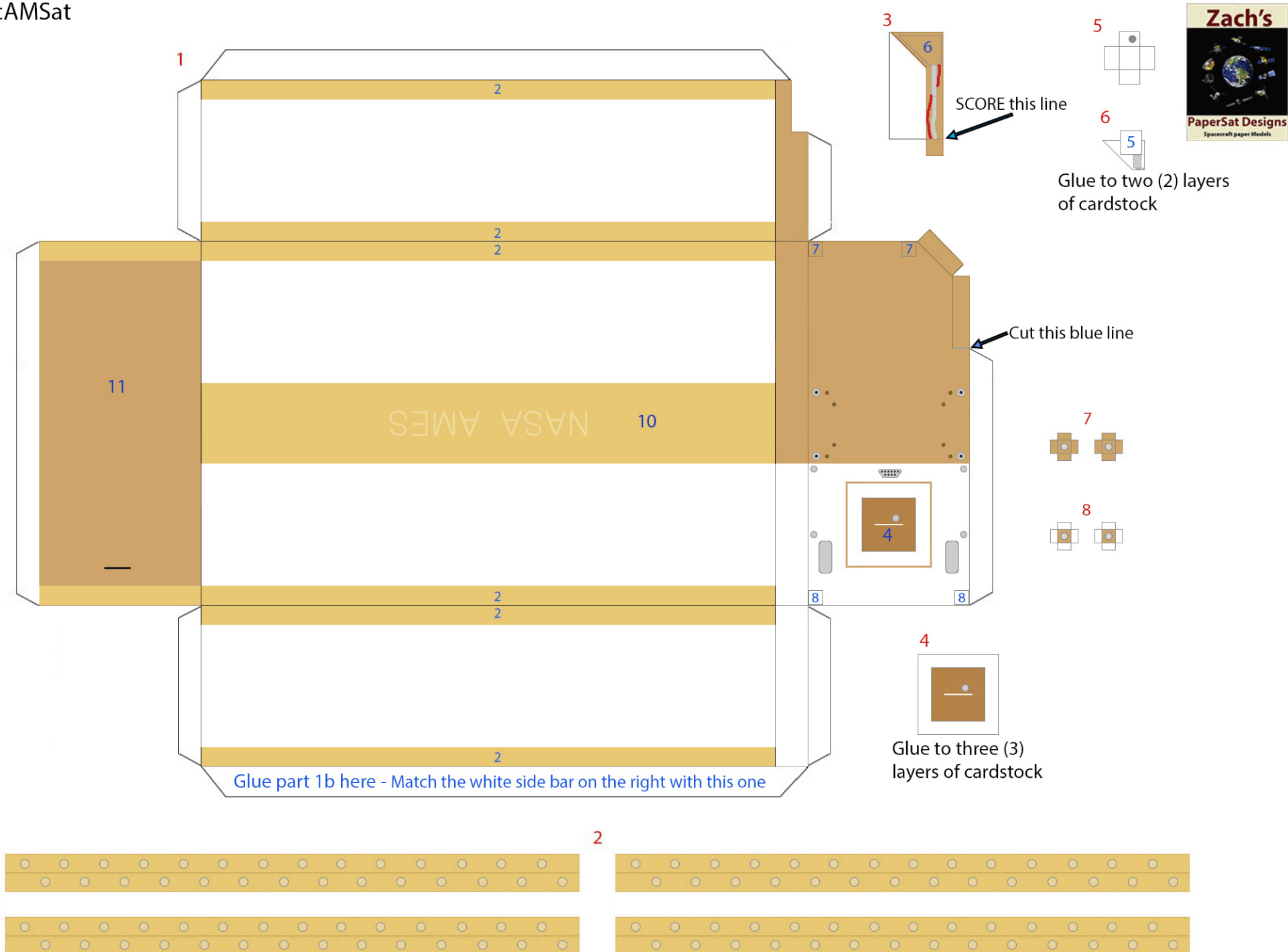
The satellite has a mass of 10.4 Kilograms and measures 10 x 20 x 30 centimeters in size (14.4 inches long, 8.9 inches wide and 3.9 inches tall).

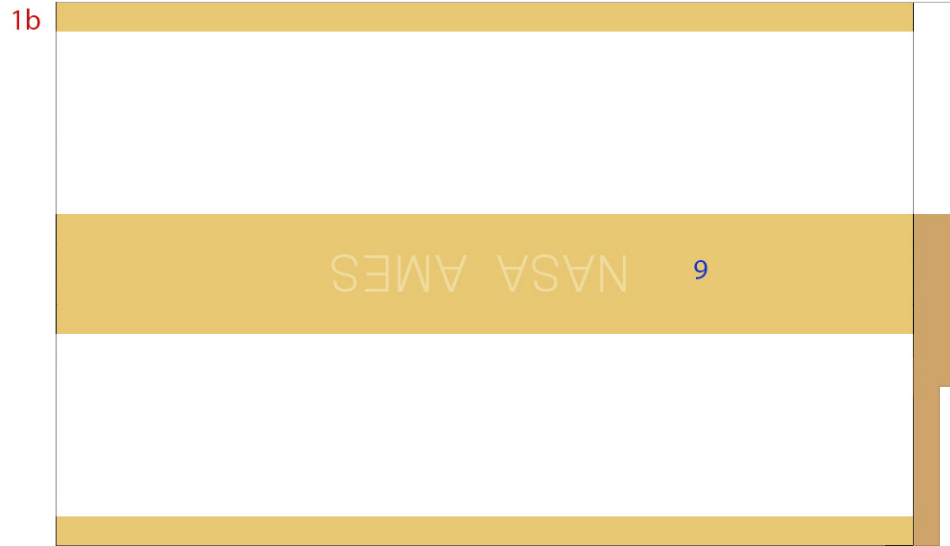
EcAMSat has onboard memory sufficient to hold the all data generated during 152 hours of science operations, sufficient to store data from the entire experiment run for gradual downlink to the ground via an S-Band system. The total foreseen mission duration for EcAMSat is 45 days.

In addition, EcAMSat will serve to demonstrate the 6U satellite platform with two separate payload volumes.

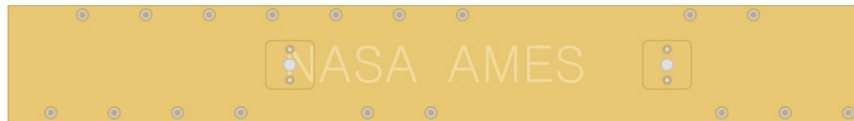
EcAMSat was launched to the International Space Station aboard Orbital ATK's, Cygnus OA-8 on November 11 where it was deployed via the JEM airlock on 20 November 2017.







9

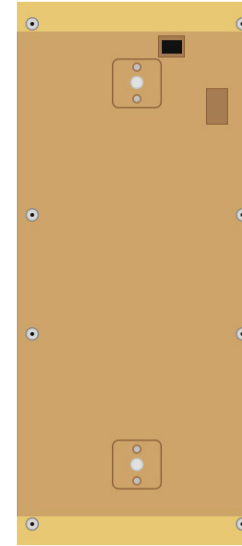


Glue these two panels to three (3) layers of cardstock, color edges dark yellow or similar color.

10



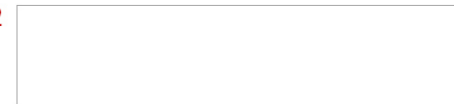
11



Glue this to three (3) layers of cardstock, color edges with similar colors.

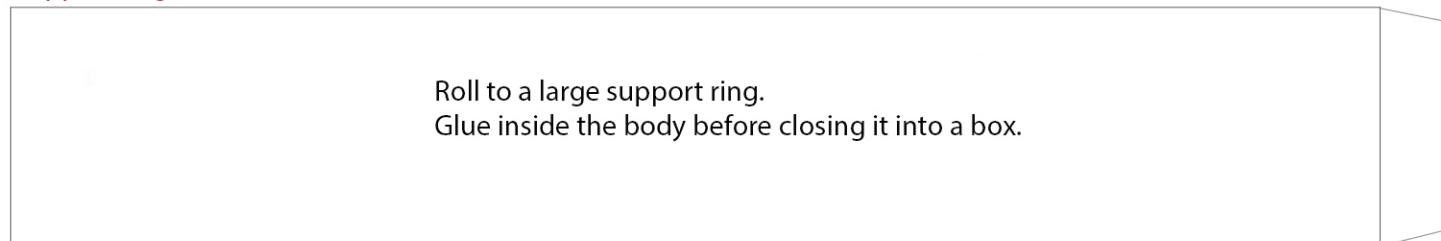
Need a long tooth pic or wood skewer with the same diameter cut at the same length as the line above, colored light grey or silver.

12

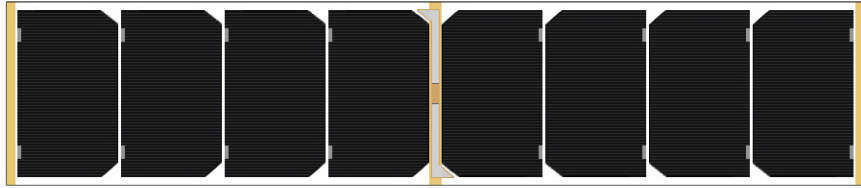
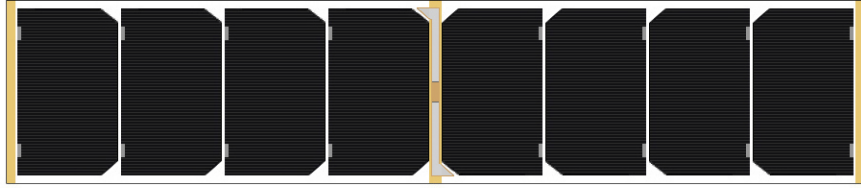
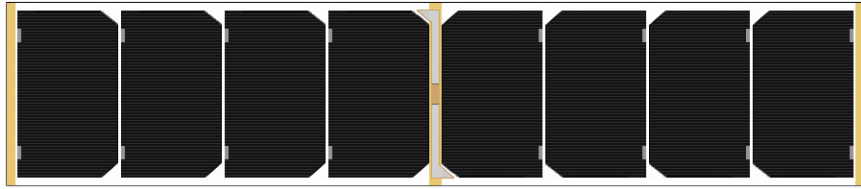
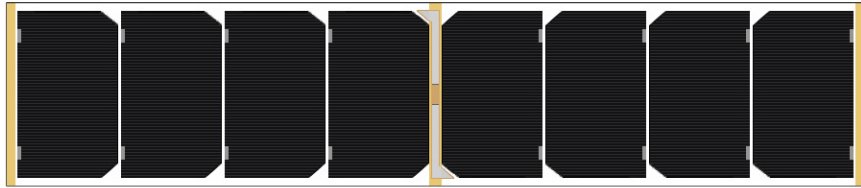
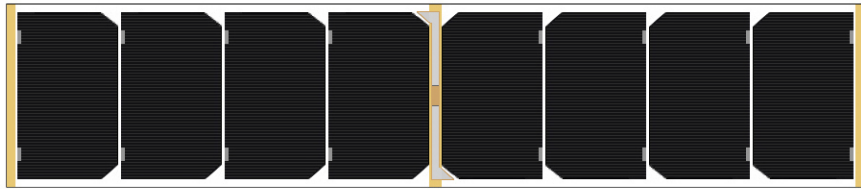
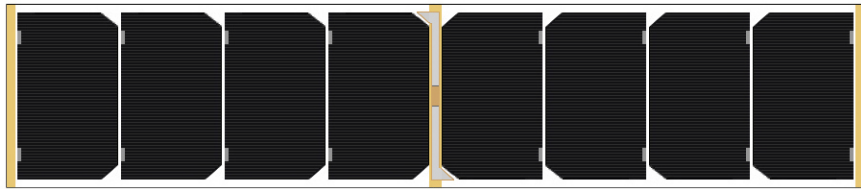


Glue the rod along the long edge of the part above with one end flushed with one of the short ends. The rod should extend beyond the other end of the above part.
Let the glue dry and roll tightly around the rod and glue in place.

Support ring.



Glue these 6 panels to three (3) layers of cardstock



Optional detail parts

