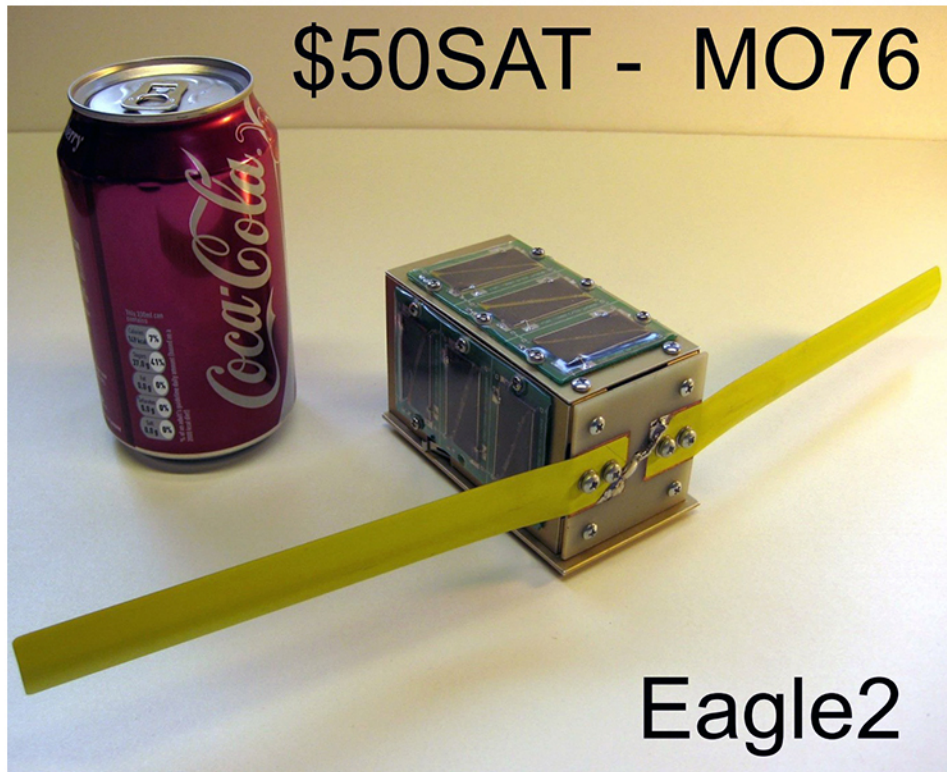




PocketQubes are pico-class satellites (mass between 0.1 and 1 kg) invented by Professor Robert J. Twiggs (Morehead State University) that are envisioned to fly in constellations and perform a variety of functions from communications to Earth remote sensing and space research.

A PocketQube is a type of miniaturized satellite for space research that usually has a size of 5 cm cubed, has a mass of no more than 180 grams, and typically uses commercial off-the-shelf components for its electronics.

Beginning in 2009, Morehead State University (MSU) and Kentucky Space developed the PocketQube specifications to help universities worldwide to perform space science and exploration. While the bulk of development comes from academia, several companies build PocketQube, such as PocketQube Shop. PocketQube projects have even been the subject of Kickstarter campaigns. The PocketQube format is also popular with amateur radio satellite builders.

The PocketQube specification accomplishes several high-level goals. Simplification makes it possible to design and produce a workable satellite at low cost. Encapsulation of the launcher-payload interface takes away the prohibitive amount of managerial work that would previously be required for mating a piggyback satellite with its launcher. Unification among payloads and launchers enables quick exchanges of payloads and utilization of launch opportunities on short notice. PocketQube is similar to Cubesat in this regard.

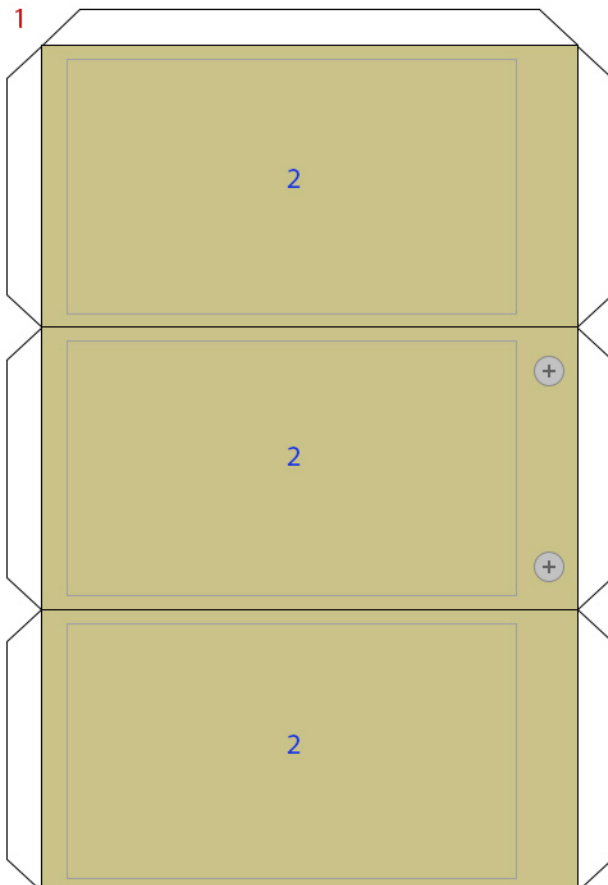
First proposed in 2009 as a solution to the increasing costs of Cubesat launches to Low Earth Orbit, the world's first 4 PocketQube Satellites were launched on 21 November 2013 aboard the Italian UniSat 5 microsatellite. They were The Wren, T-Logoqube (Eagle-1), \$50Sat (eagle2) and Qubescout-S1.

This model you're building:

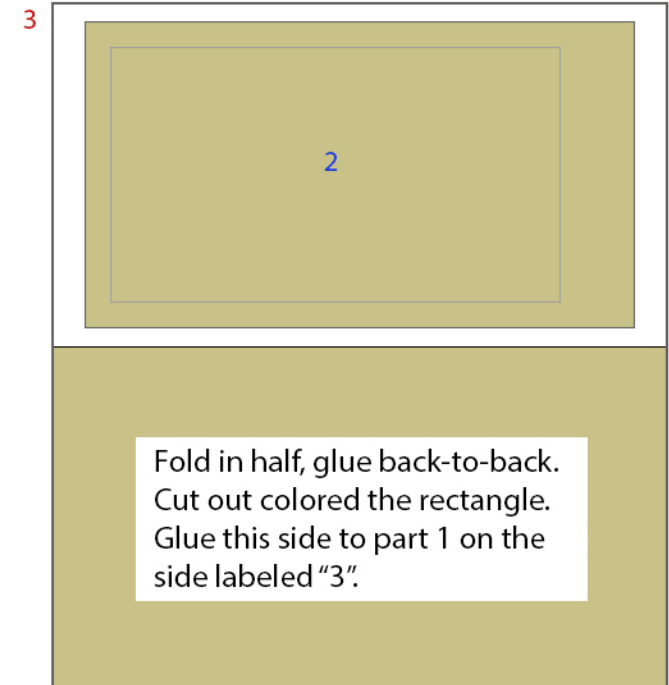
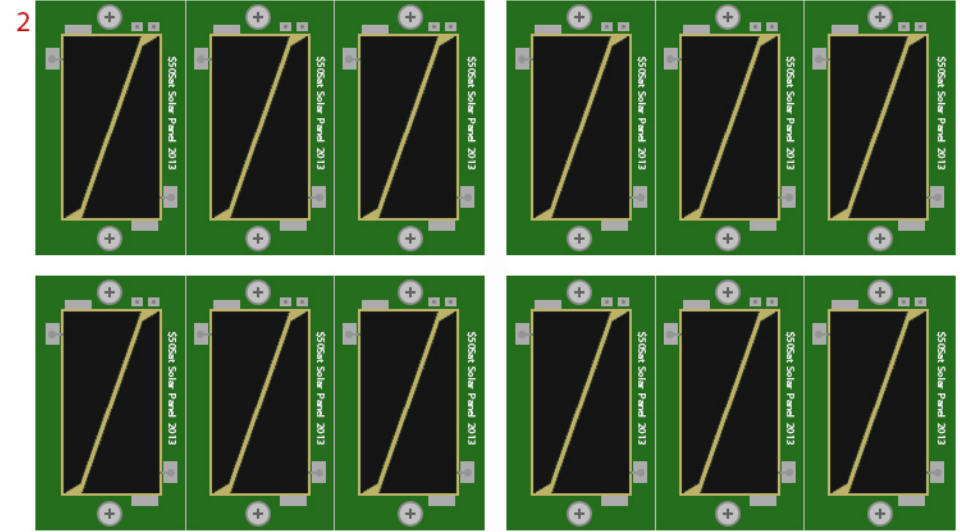
\$50SAT (also Eagle-2 , Morehead OSCAR 76 or MO-76) is an American amateur satellite satellite .

It was launched on 21 November 2013 with a Dnepr rocket from the Kosmodrom Jasny. \$50SAT was developed by Bob Twiggs at Morehead State University, together with three other radio actors, and served to train students. The satellite transmits telemetry data in the 70 cm band in various operating modes . It is based on the PocketQube design and measures 5 cm x 5 cm x 7.5 cm (0.5U).

\$50Sat (Eagle 2)



Glue the green panels to two layers of cardstock



Fold in half, glue back-to-back.
Cut out colored the rectangle.
Glue this side to part 1 on the
side labeled "3".

4



Color the other side the same color