

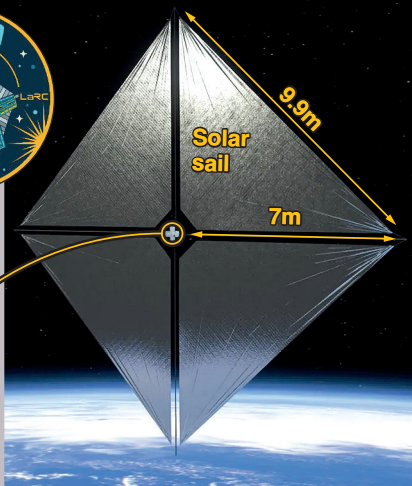
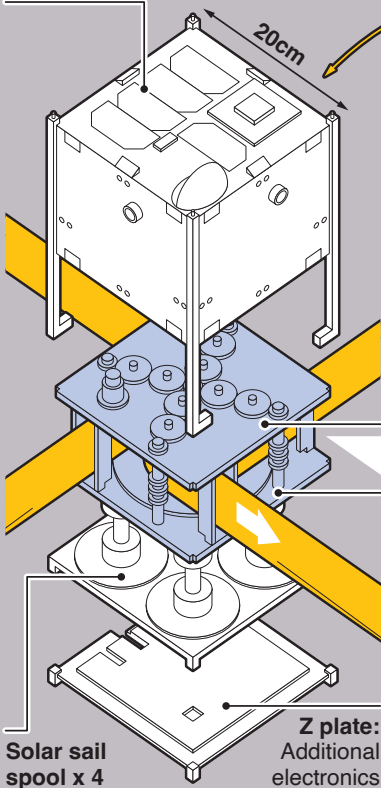
NASA tests new solar sail structure

The primary goal of NASA's new *Advanced Composite Solar Sail System (ACS3)* is to test a new, rollable carbon fibre boom that could revolutionise space exploration

CUBESAT

Solar sails will extend from nanosatellite measuring just 20cm x 20cm x 30cm

Bus: Houses flight computer, sun sensors, star tracker and radio communications



INNOVATIVE BOOM DEPLOYER

Carbon fibre booms pressed flat and rolled up like tape. Each weighs just **900g** – 75% less than comparable metal booms, which are prone to thermal buckling

Motor drive gears

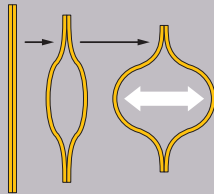
Tape driver

Boom:
Unrolls to 7m long

Booms pull out sail quadrants

EXPANSION

Boom resumes tube shape when unfurled



Booms could eventually be used to build structures for base on moon