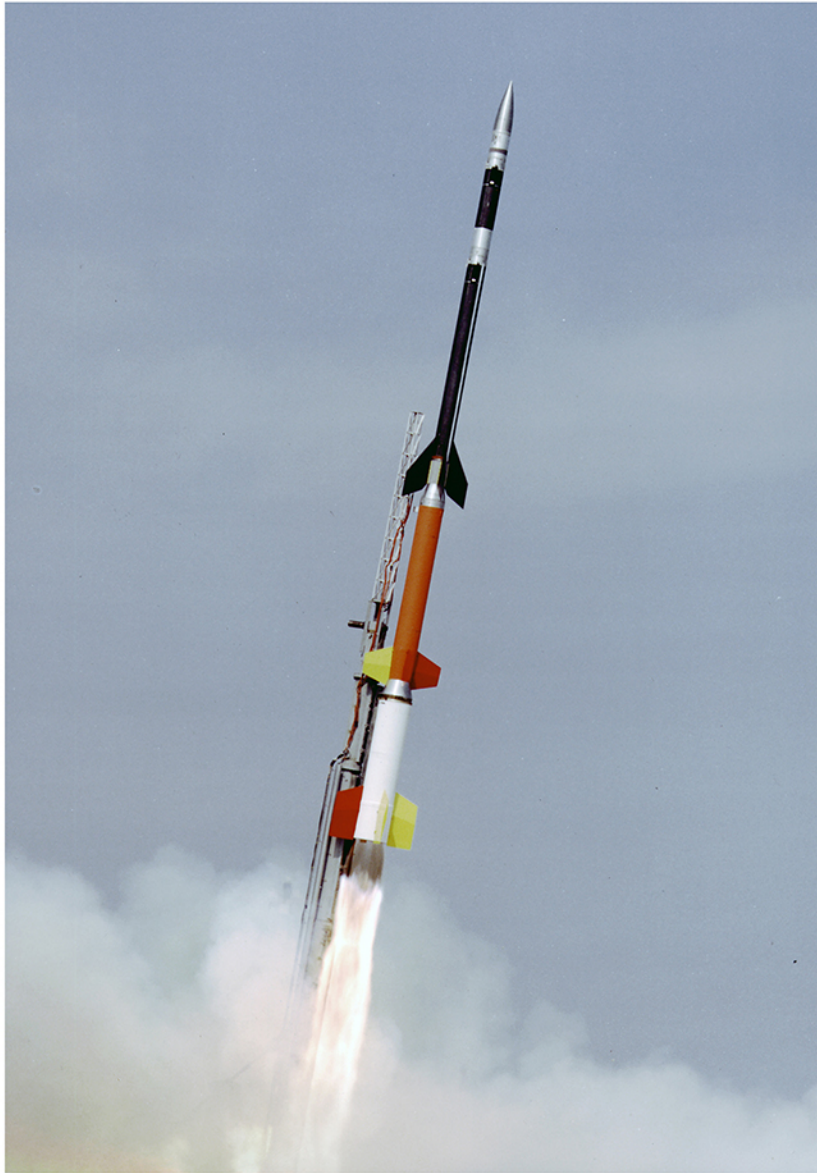


Black Brant XII Sounding Rocket



The Black Brant XII rocket system is a four stage system used primarily to carry a variety of payloads to high altitudes. Its development is a spin-off of the Black Brant X development.

It stands around 66 feet tall - the tallest of NASA's 13 sounding rockets and - produces about 70,000 pounds of thrust at lift off.

These rockets can carry scientific payloads of various weights up to 1,213 lbs. (550 kg) to altitudes from 30 miles (48 km) to more than 800 miles (1,287 km).

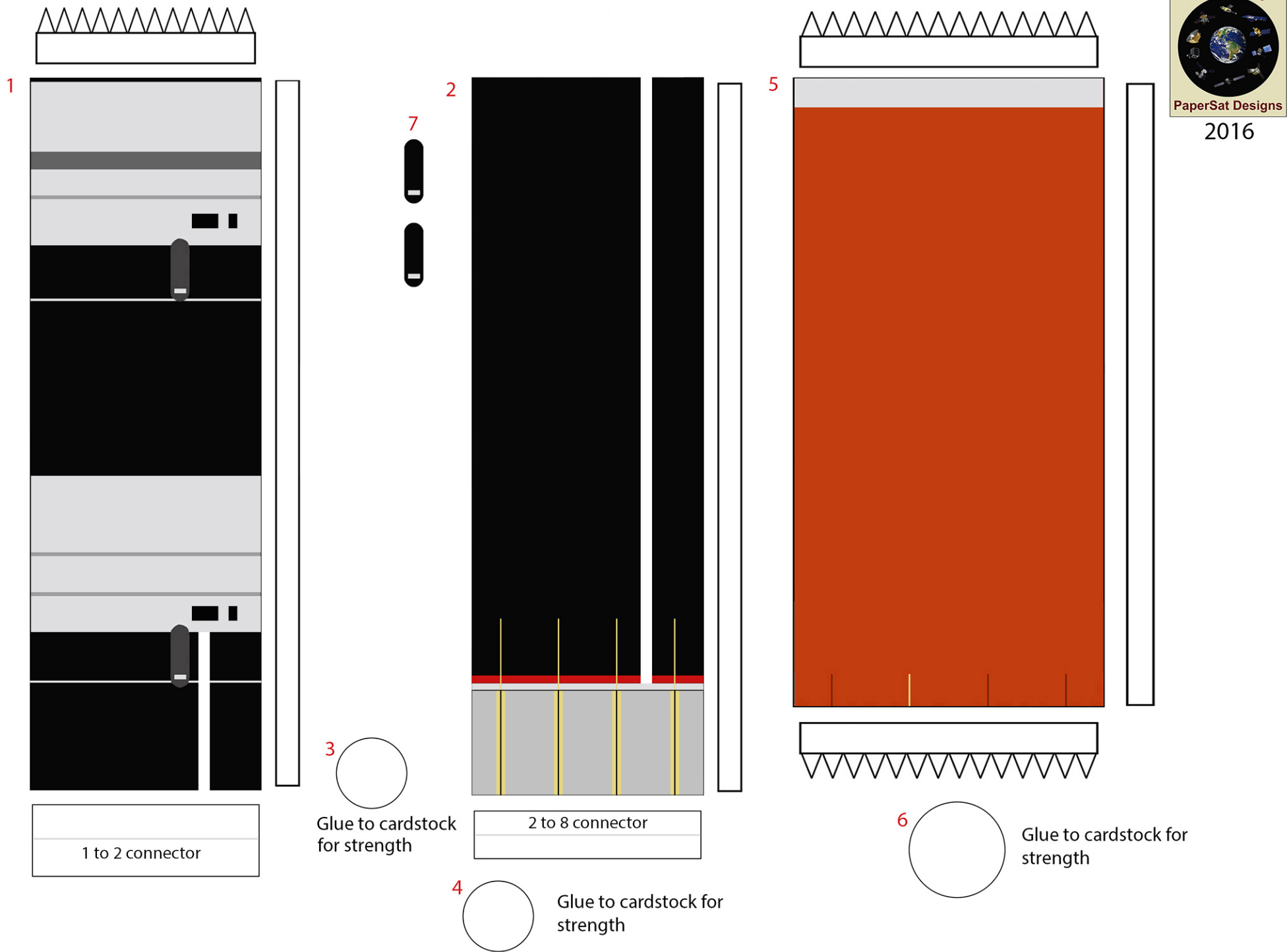
Researchers like to use sounding rockets because they offer an inexpensive means for conducting space, microgravity and Earth science research and have proven to be invaluable test beds for new technologies. The Wallops facility conducts about 35 launches per year.

The fourth stage does not require fins since it is ignited outside the atmosphere. The 5 Hertz spin rate keeps the rocket stabilized, much like a gyroscope.

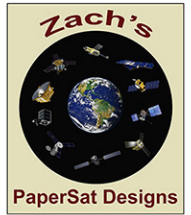


2016

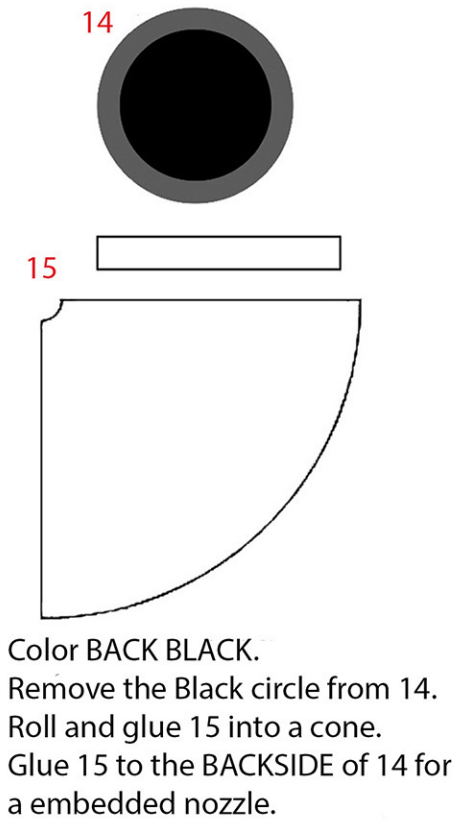
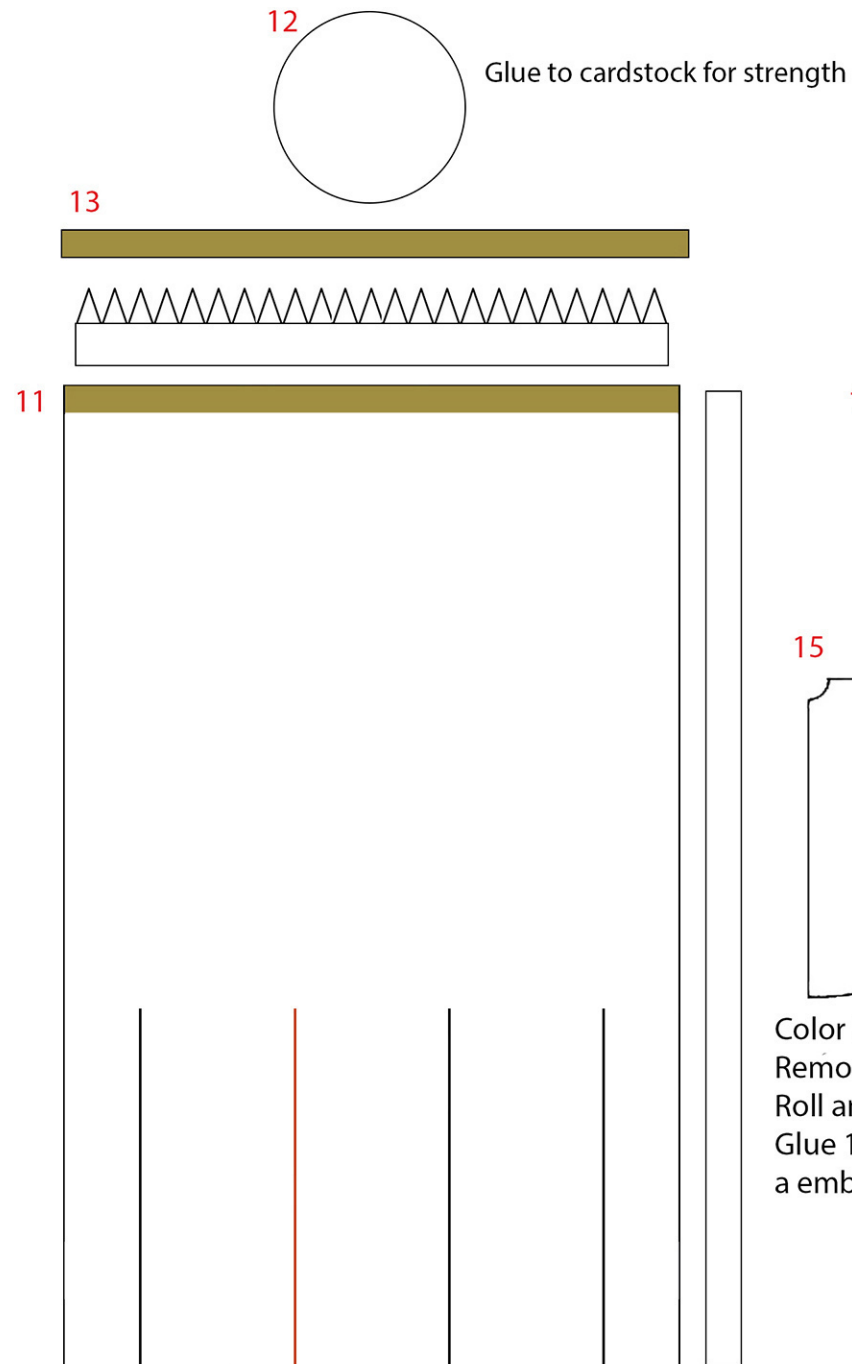
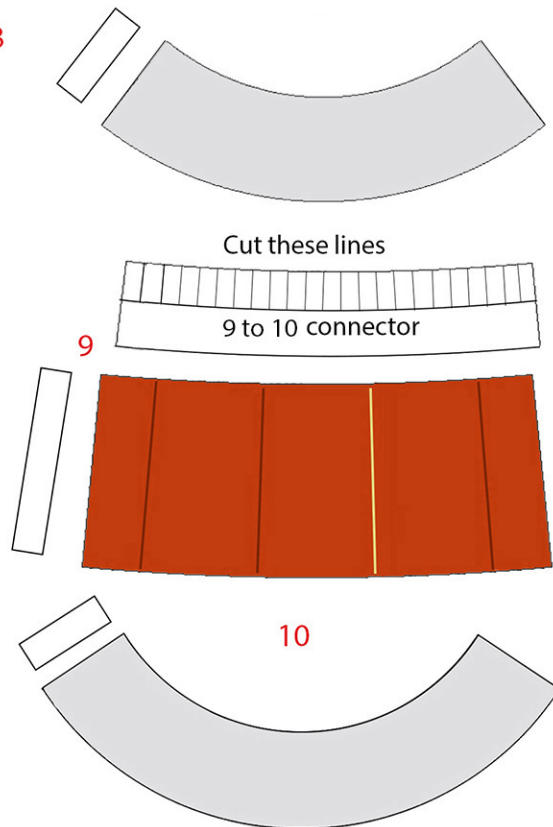
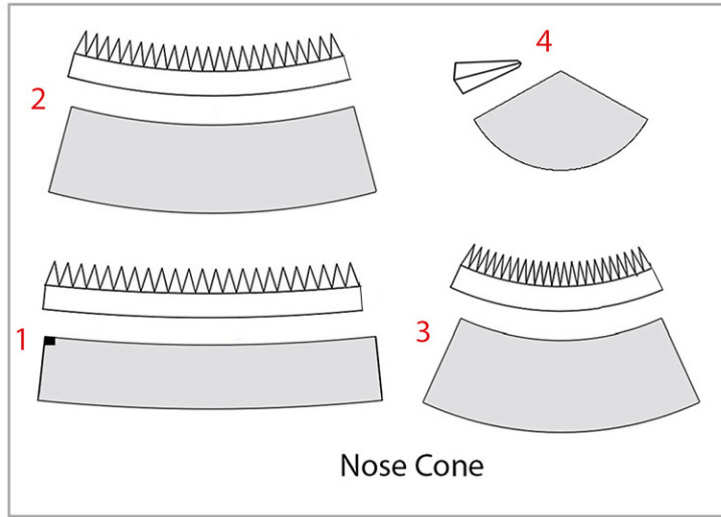
Black Brant XII Sounding Rocket



Black Brant XII Sounding Rocket



2016

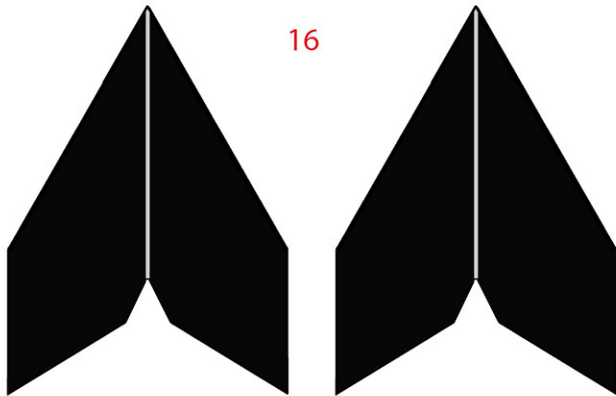


Black Brant XII Sounding Rocket

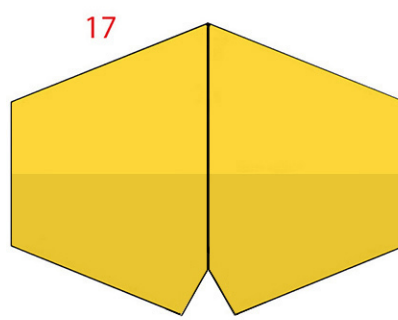
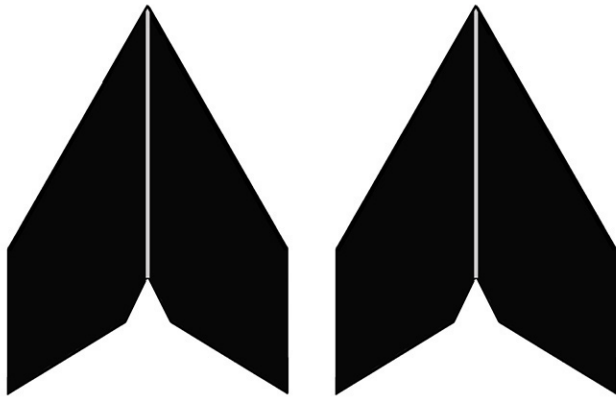
Score and fold all these fins in half



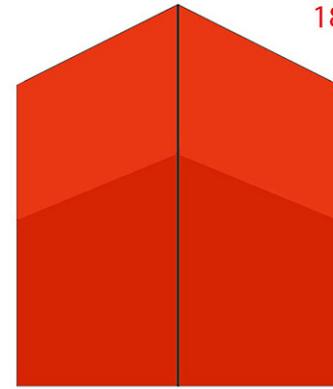
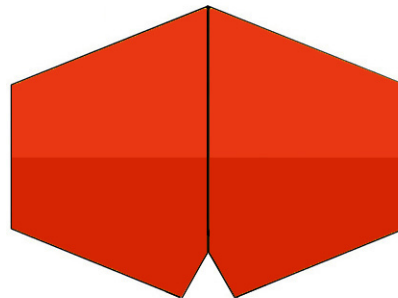
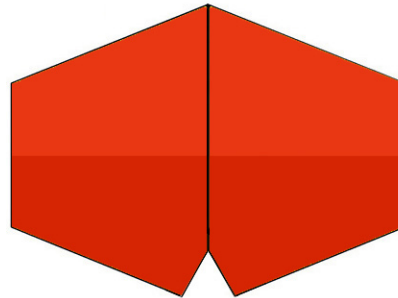
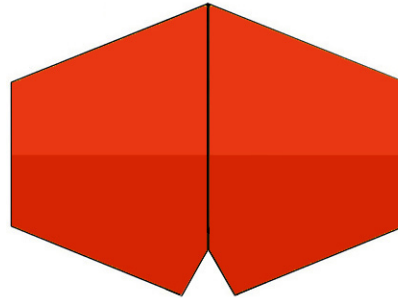
2016



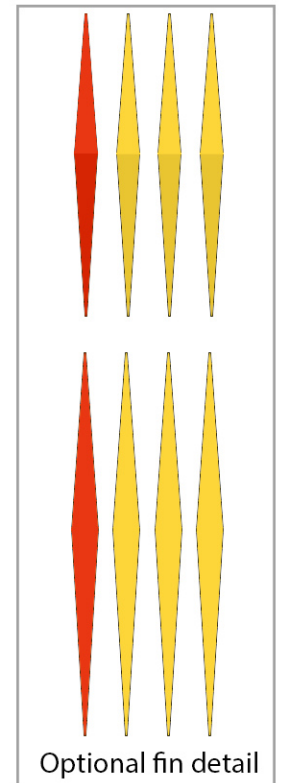
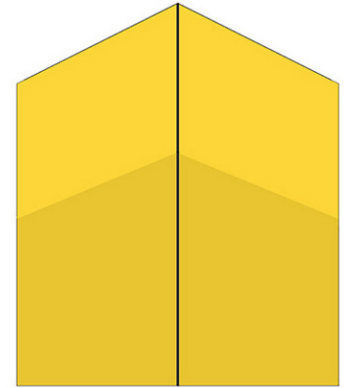
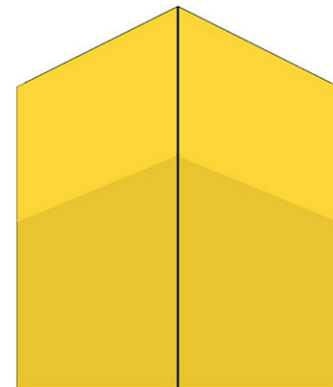
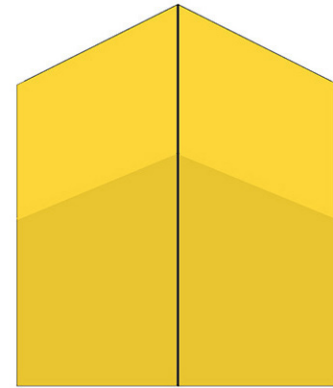
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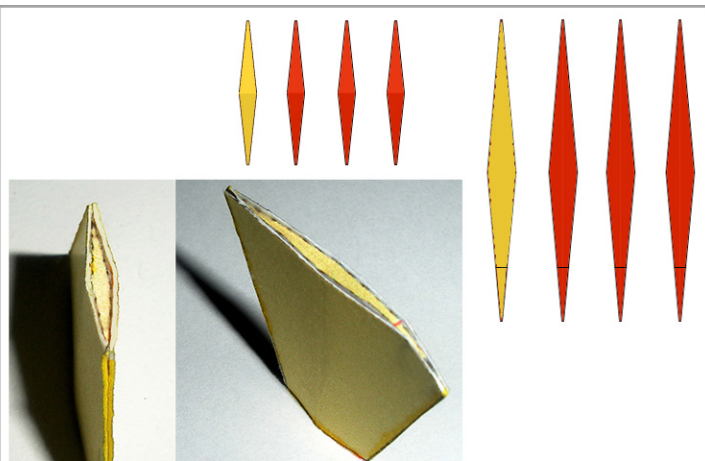
17



18



Optional fin detail



Optional Fin Detail

Cut fins in half on the black line. Glue small diamond shape part to the outer end, glue larger diamond shape part to the inner end.