

Angara A5



Russia's Angara A5 (heavy lift launch vehicle) premiered on December 23, 2014 with a successful launch from Plesetsk Cosmodrome. The 773 tonne 3.5 stage rocket lifted off from Site 35/1 at 05:57 UTC, rising on 980 tonnes of thrust from its five Energomash RD-191 kerosene/LOX engines. The liftoff began a planned nine-hour mission intended to use four burns of the rocket's Briz-M upper stage to insert a 2 tonne dummy payload into geosynchronous orbit.

Angara A5 was the biggest Russian launcher to debut since the Energia rocket for the Soviet Union's Buran space shuttle flew in the late 1980s.

Angara A5 consisted of a five 2.9 meter diameter URM-1 (Universal Rocket Module) units clustered to form a core stage surrounded by four booster stages. The core first stage was topped by a 3.6 meter diameter URM-2 second stage and a Briz M third stage. Each URM-1 was powered by a single chamber, 196 tonne thrust RD-191 staged combustion kerosene/LOX engine. RD-191 is derived from the four-chamber Energomash RD-171 engine that powers the Zenit launcher. URM-2 was powered by a 30 tonne thrust LOX/kerosene RD-0124 engine. This staged-combustion engine was developed to power the upgraded Soyuz-2 third stage, and has already been proven in flight. The Briz-M hypergolic propellant third stage has flown for several years atop Proton-M boosters.

The second test flight was launched on December 14, 2020 from Plesetsk.

Currently, there are four variants of the Angara A5..

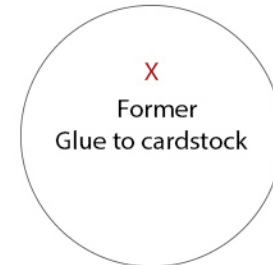
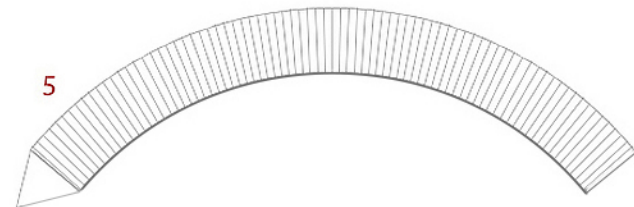
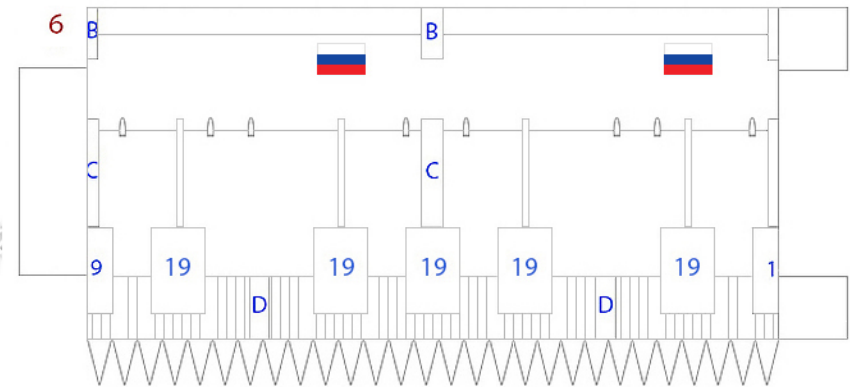
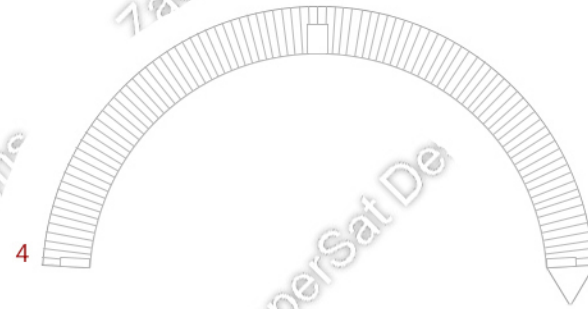
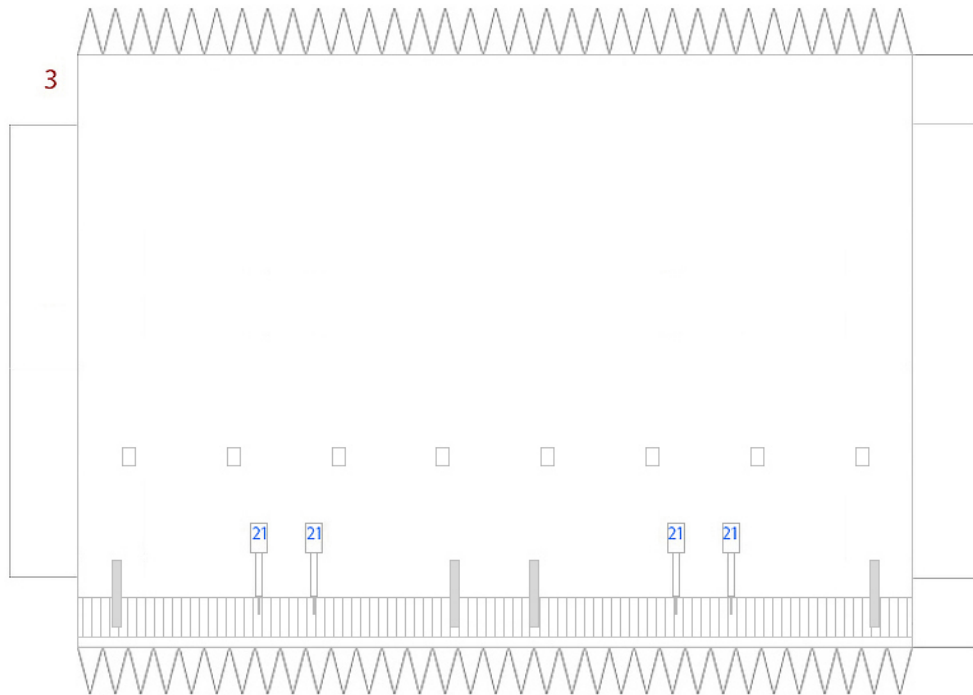
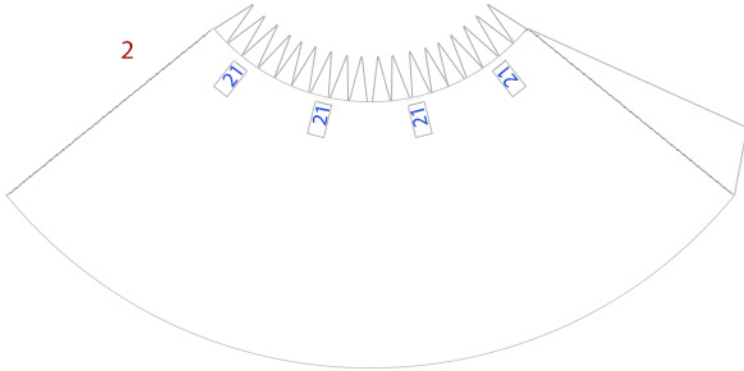
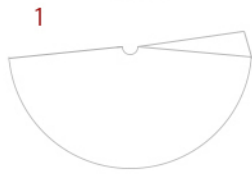
The original Angara A5,

Angara A5 with 5m fairing,

Angara A5V (being developed)

Angara A5P (crew) (being developed)

Angara A5



Angara A5

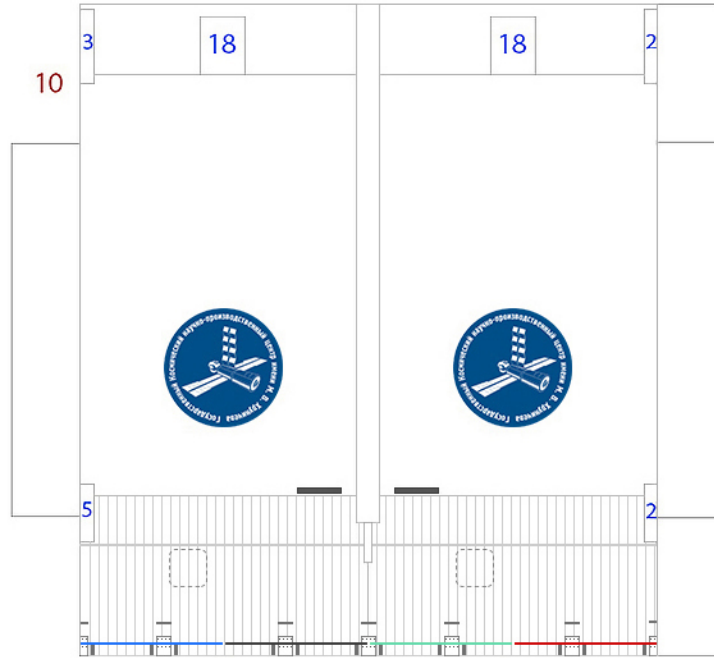
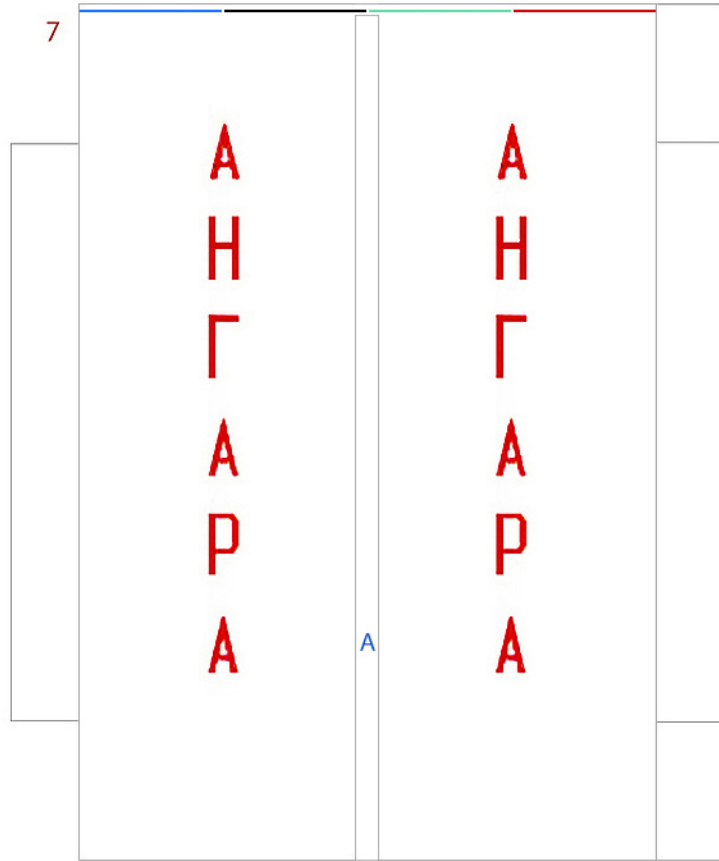
Zach's



PaperSat Designs
Spacecraft Paper Models

5 to 7 connector

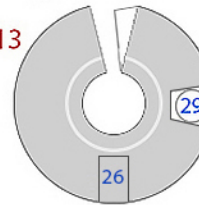
7 to 10 connector



12



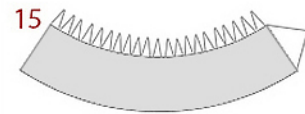
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14



15

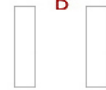


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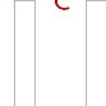
8



B



C



D



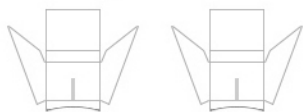
Glue to cardstock

Angara A5

A



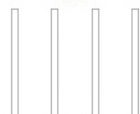
18



19



20



Glue to cardstock

21



22



Glue to cardstock

Optional Detail Parts

Glue on the matching graphics on part 6



*spares

Optional Detail Parts

Glue on the matching graphics on part 3



*spares



23

24



24

26



27



28



29

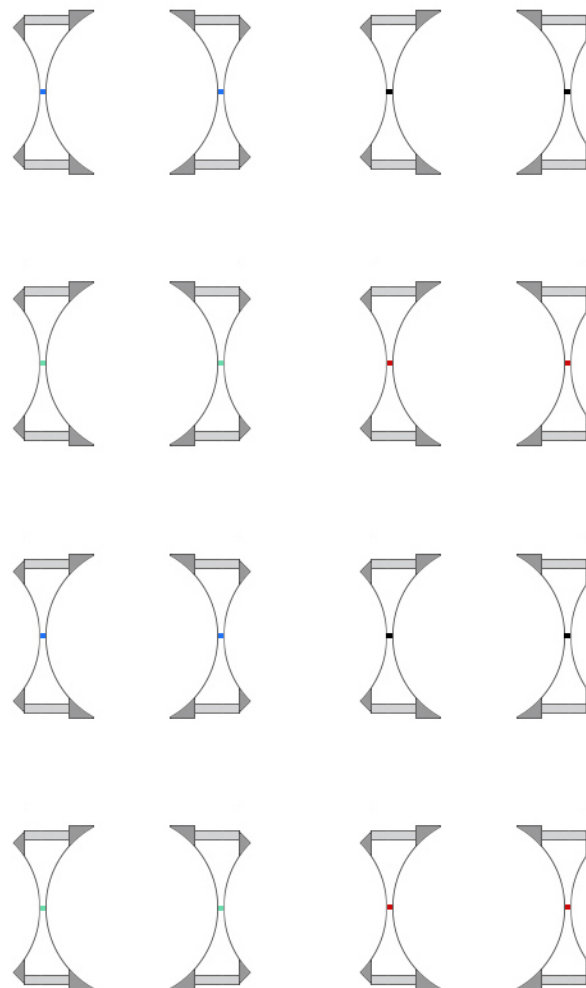


25



24

Booster Brackets



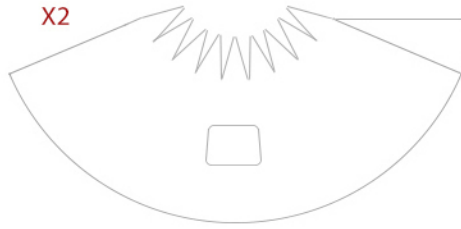
Glue all to cardstock, cut out and glue each pair back-to-back

Zach's

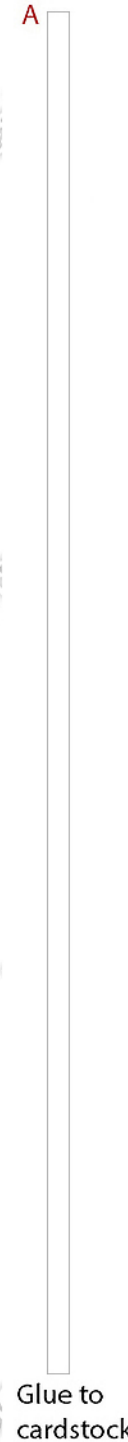
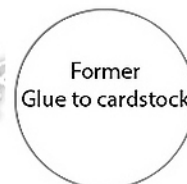
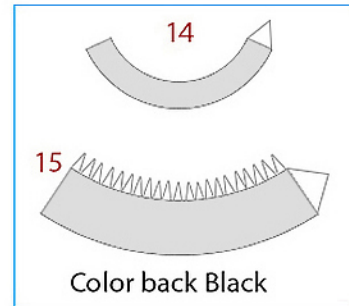
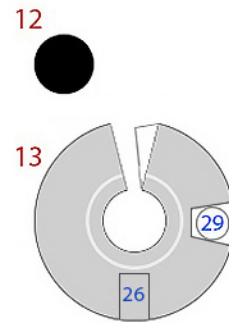
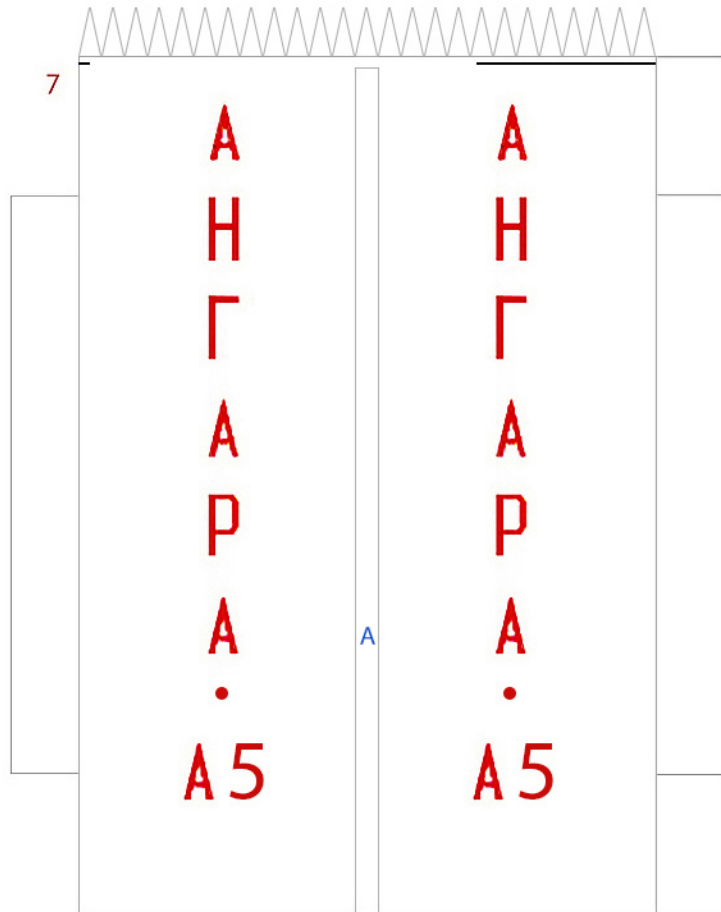
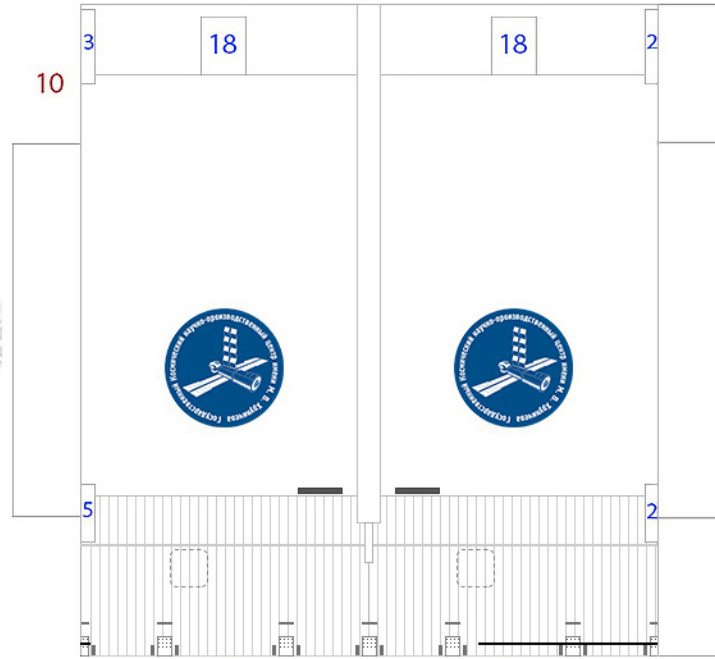


PaperSat Designs
Spacecraft Paper Models

Angara A5

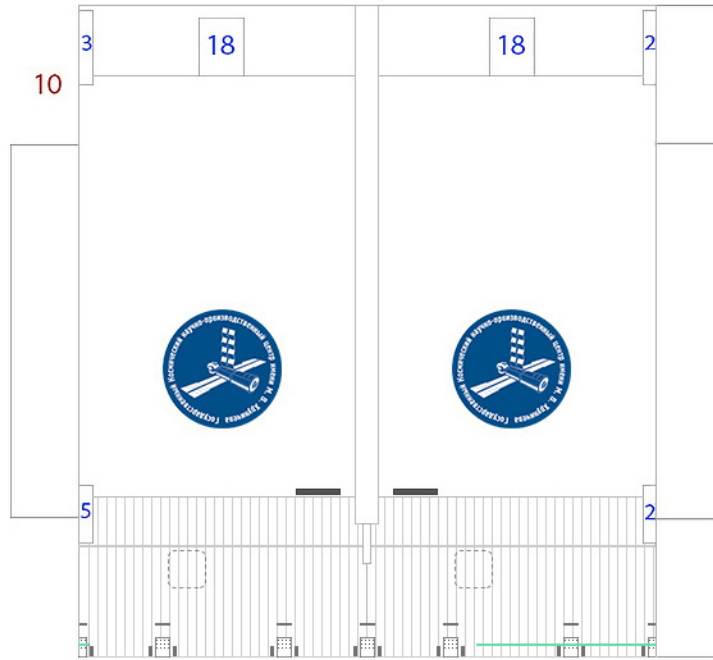
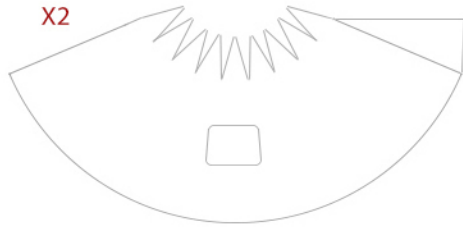
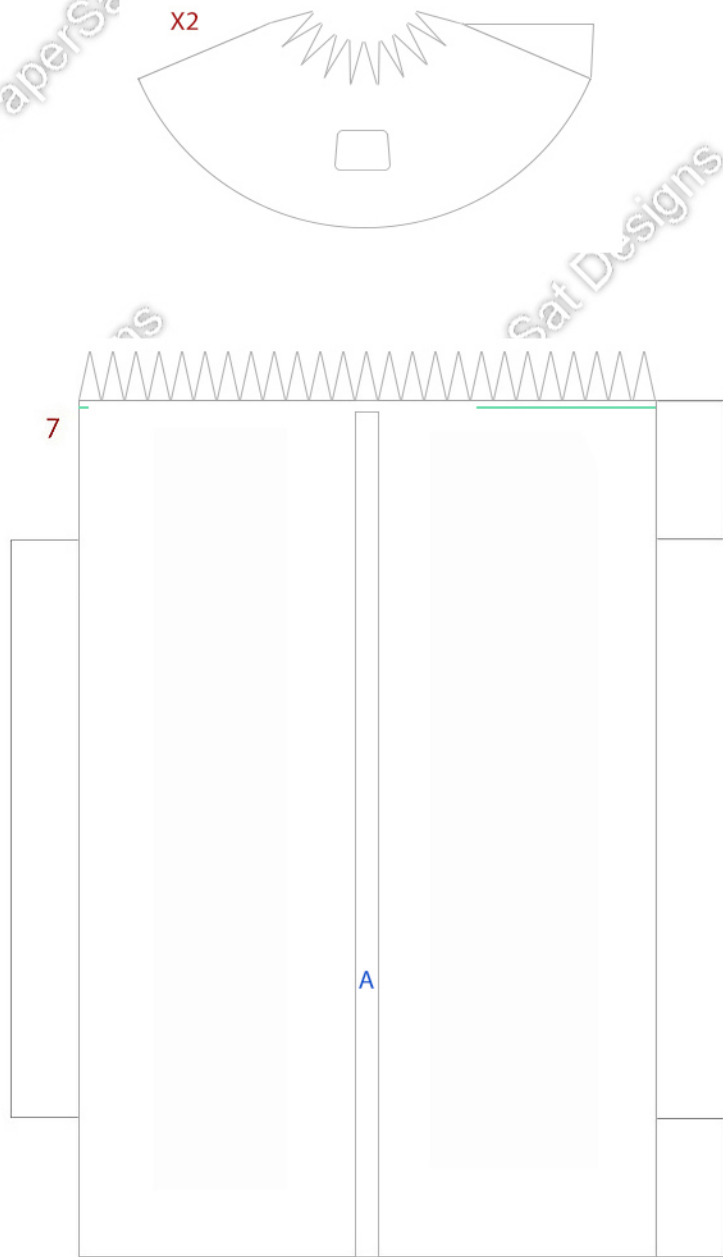


Boosters



Angara A5

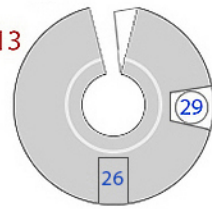
Boosters



12



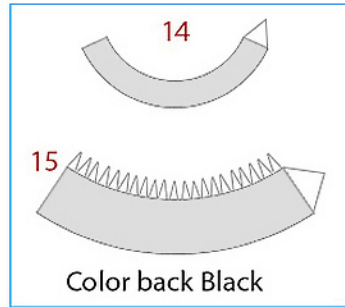
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8

Former
Glue to cardstock

Former
Glue to cardstock



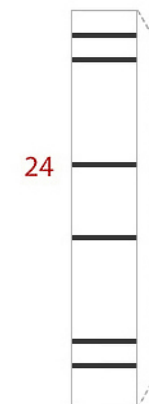
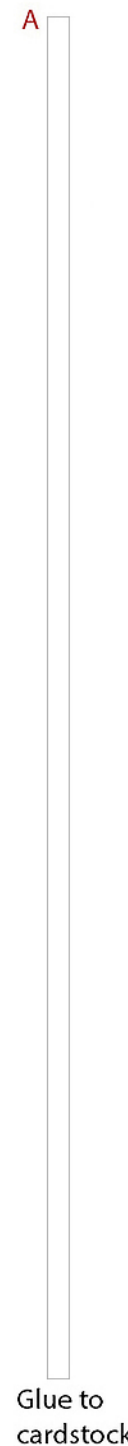
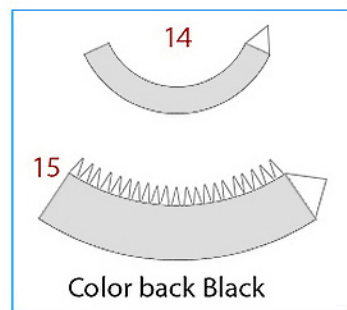
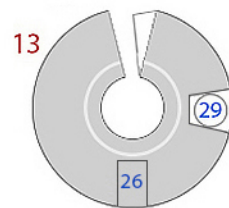
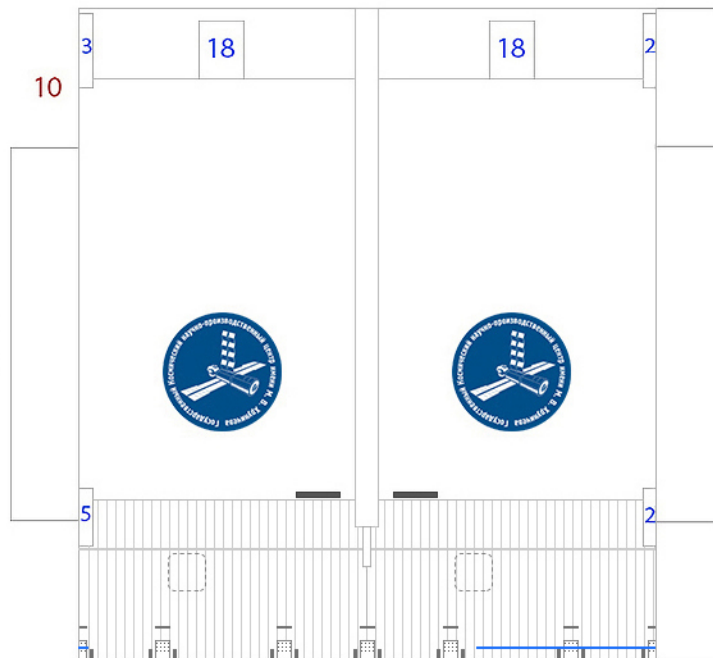
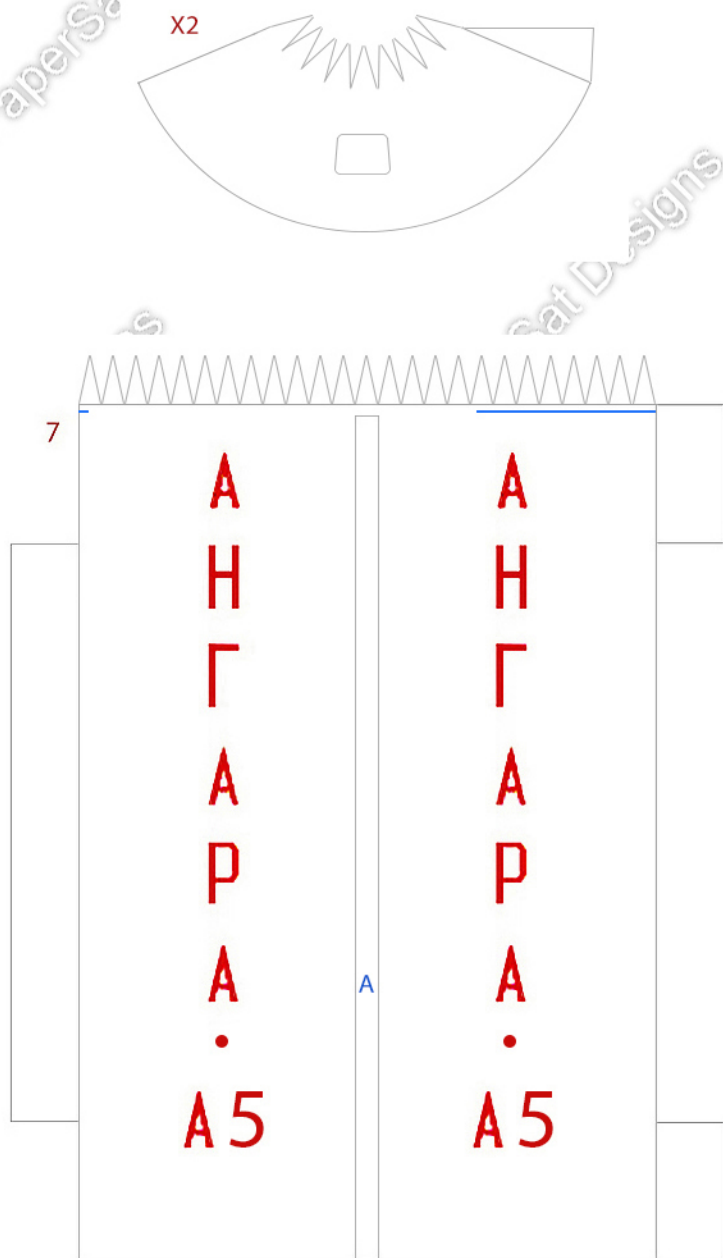
A

Glue to
cardstock



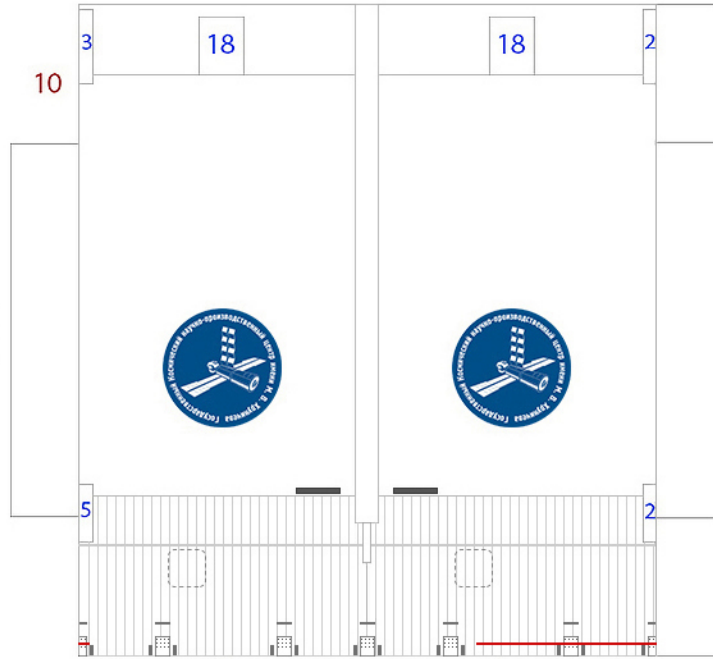
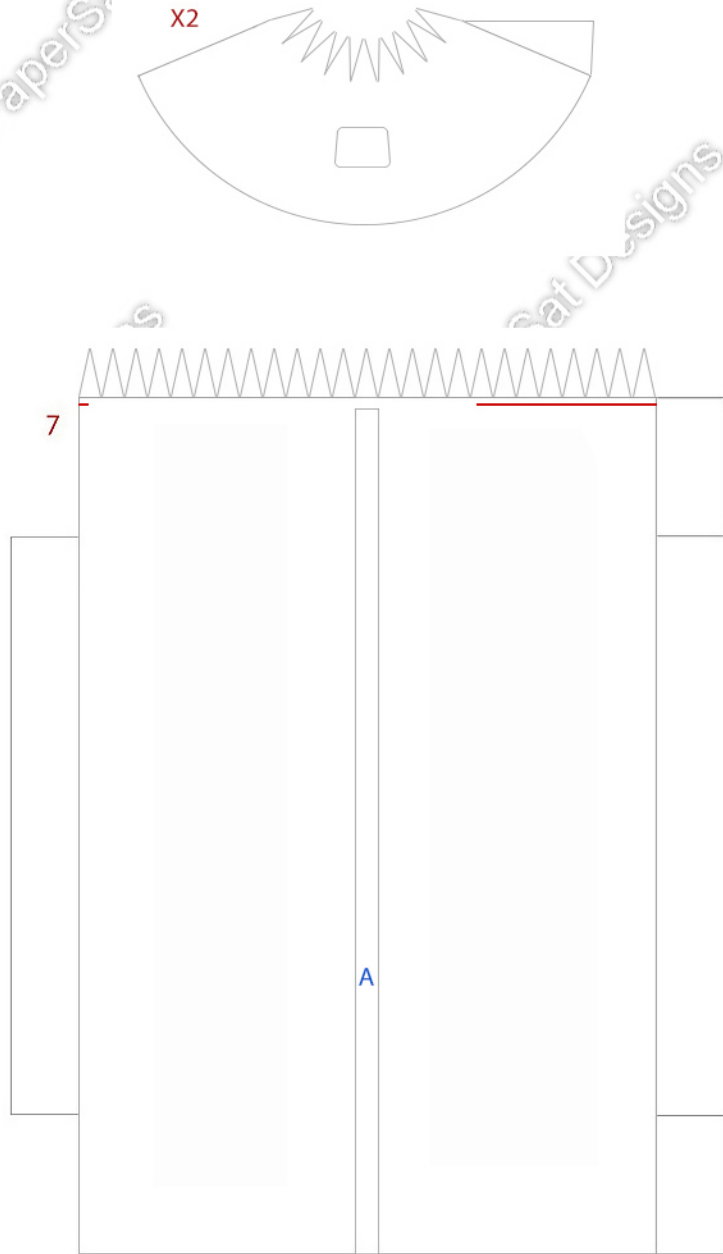
Angara A5

Boosters



Angara A5

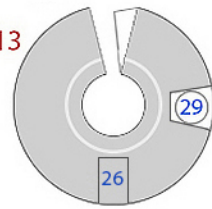
Boosters



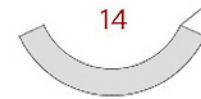
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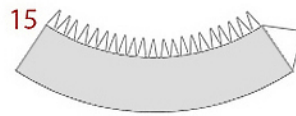
13



14



15



Color back Black

8

Former
Glue to cardstock

Former
Glue to cardstock

18



A

Glue to
cardstock

23



24



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