

Titan IIIE



Titan IIIE Centaur with Viking 2 on Launch Complex 41

The Titan IIIE or Titan 3E, also known as the Titan III-Centaur, was an American expendable launch system. **Launched seven times between 1974 and 1977, it enabled several high-profile NASA missions, including the Voyager and Viking planetary probes and the joint West Germany-U.S. Helios spacecraft.** All seven launches were conducted from Cape Canaveral Air Force Station Launch Complex 41 in Cape Canaveral, Florida.

The function of the Titan III E Centaur launchvehicle is to lift the Viking spacecraft into Earth orbit, then boost it into a trajectory that will take it to Mars.

The three Titan stages and an initial burn of theCentaur upper stage place the spacecraft in a90 nautical mile high parking orbit around Earth. Then, at the proper moment between six and 30 minutes later, the Centaur fires again to push the spacecraft on the proper course to Mars.

The two Titan III E Centaur vehicle that launch the Vikings on their trip to Mars, are a combination of the Titan III E booster and the Centaur D-1T upper stage.

This is a new combination of two systems that have been used extensively in other combinations. This vehicle is well suited for high performance deep space missions, and for placing large space craft in synchronous orbit.

The most visible change to the standard Titan III appearance is the enlarged payload shroud necessary because the diameter of the Centaur with its shroud is greater than the diameter of the Titan main core.

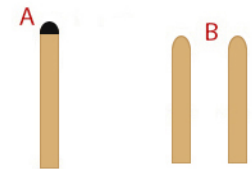
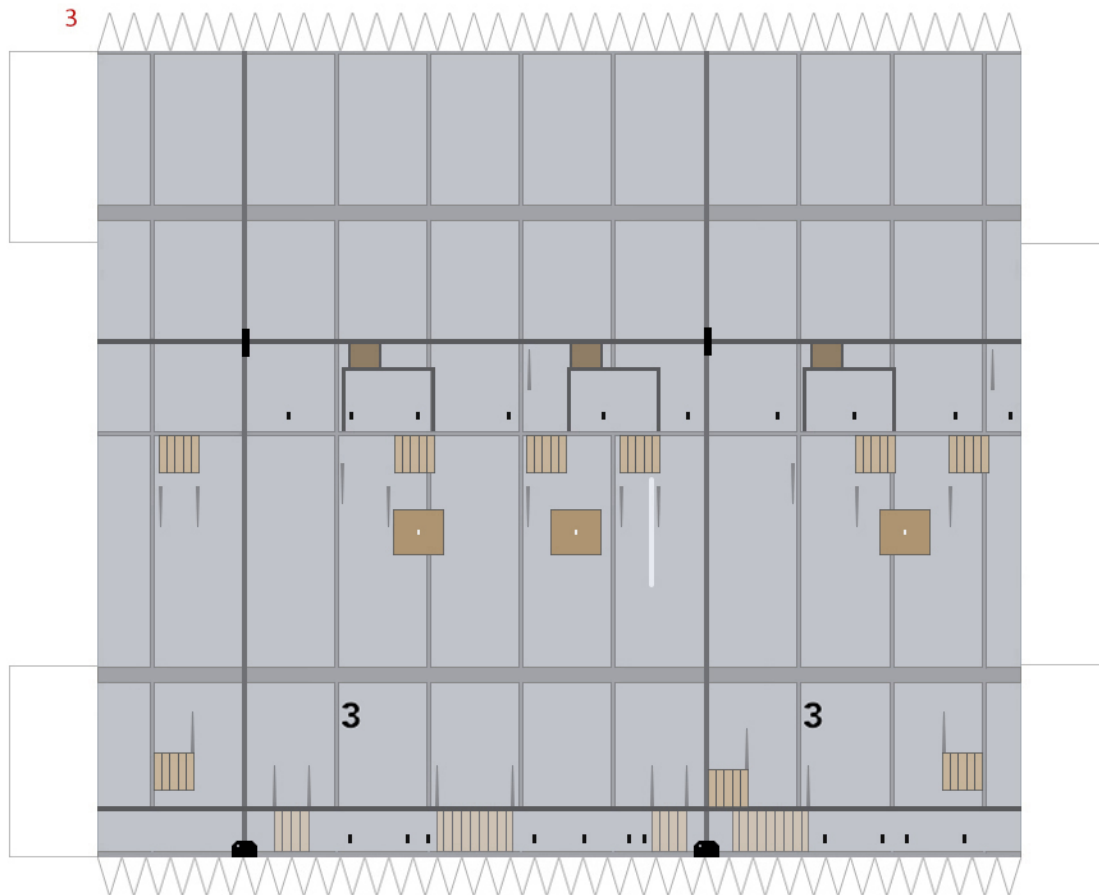
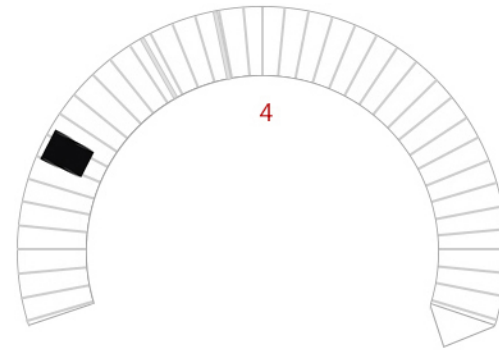
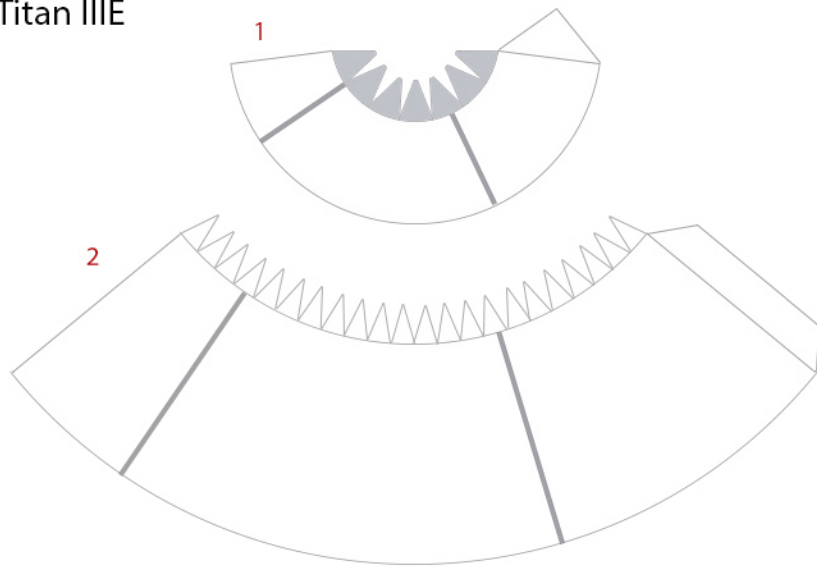
The Titan III E consists of the O-stage, which is two solid rocket motors strapped to the center core, and liquid propelled stages one and two which make up the center core. The Centaur is the fourth stage.

The Titan family of launch vehicles began with the Titan I, Air Force ICBM and includes the Titan II, the Titan Gemini launch vehicle, Titan IIIB, IIIC, IIID and now the IIIE.

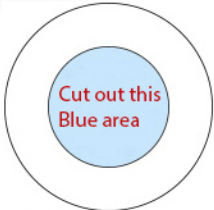
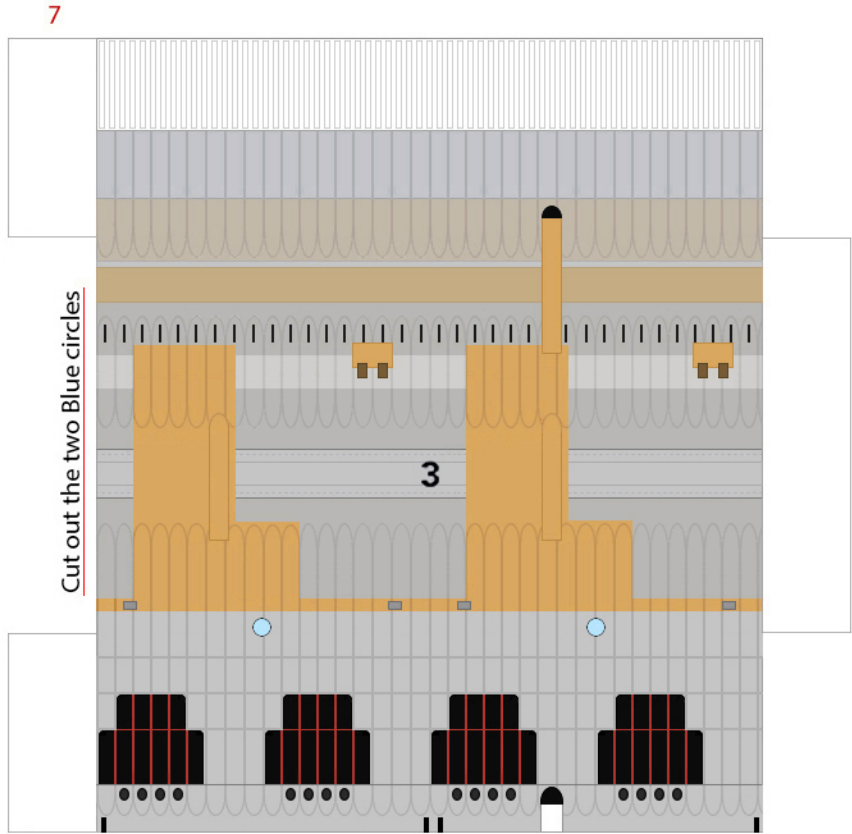
The Titan III E Centaur is 159 feet tall.



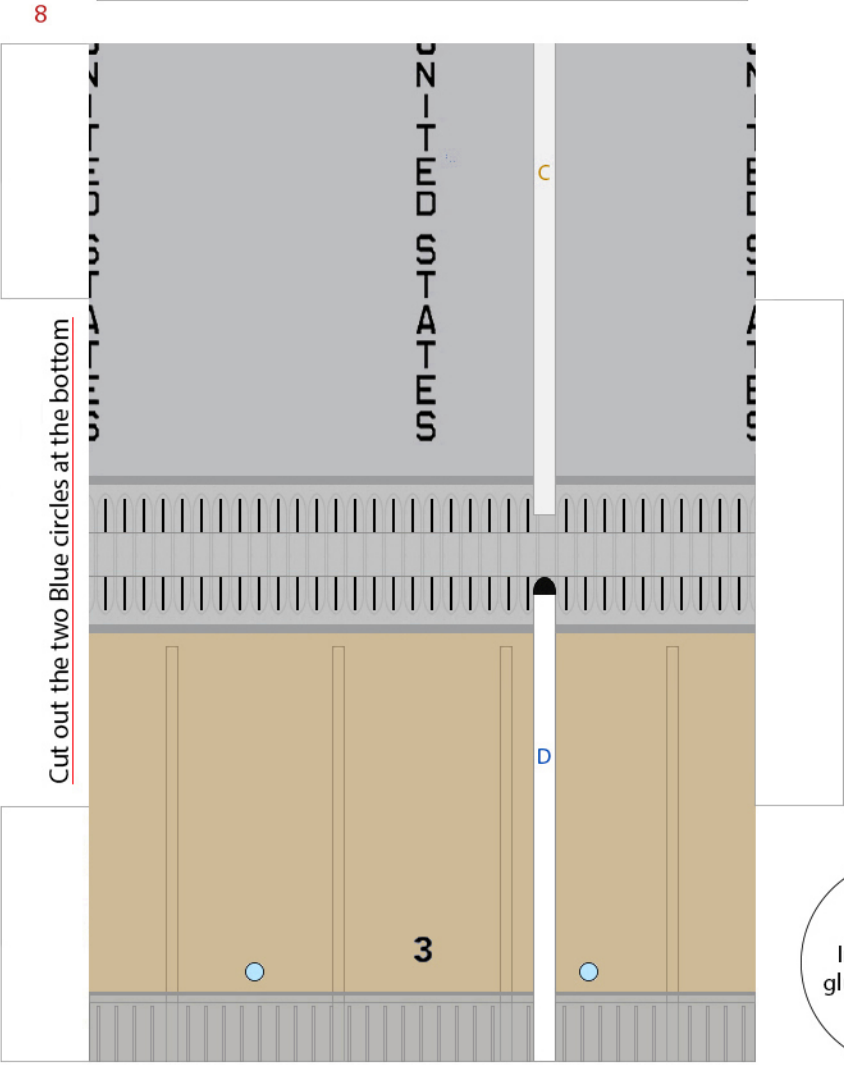
Titan III E



Titan III E

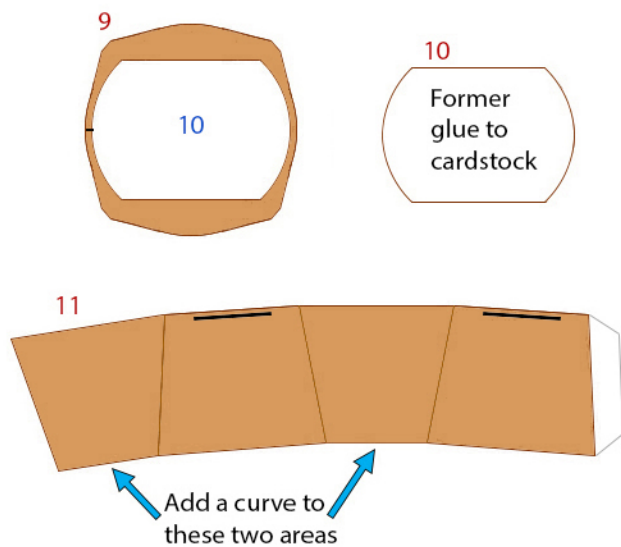


Inside former
glue to cardstock



Titan III E

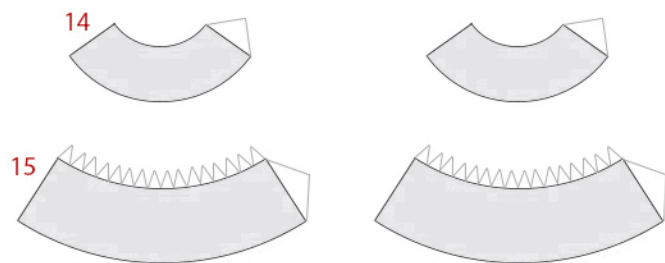
Cut two (2) tooth pics the same length as the line above for the booster support rods



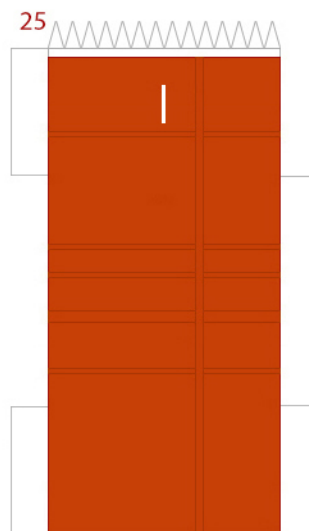
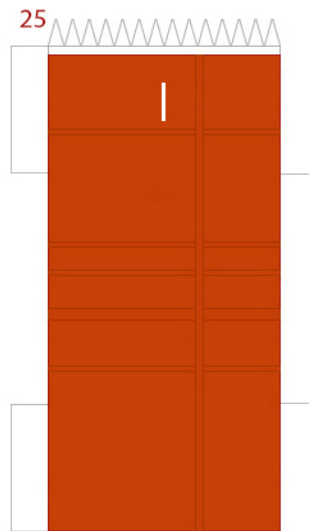
12
Inside former
glue to cardstock



13a



Color back Dark Red



HC
Glue to
cardstock



HD



Glue to
cardstock



31

30

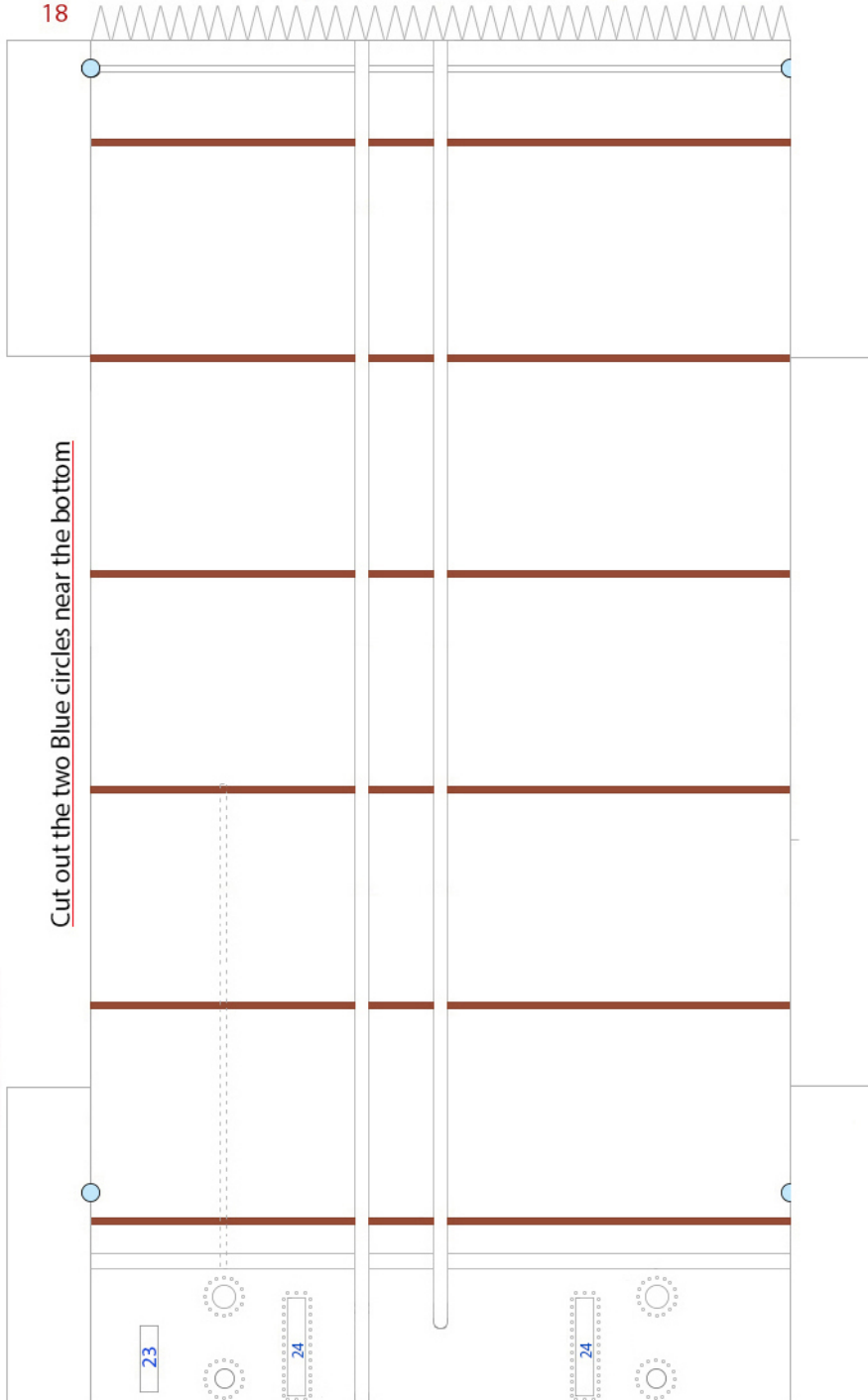


Titan III E

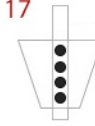
Cut out the two Blue circles

18

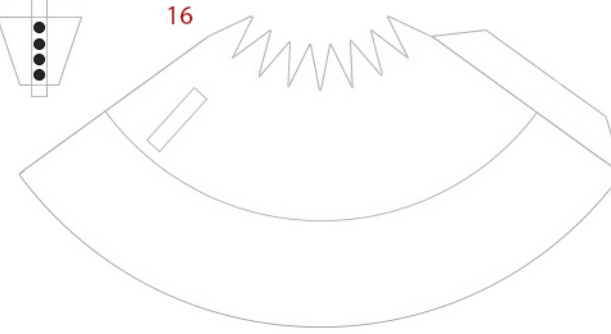
Cut out the two Blue circles near the bottom



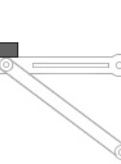
17



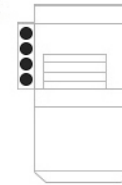
16



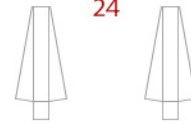
22



23



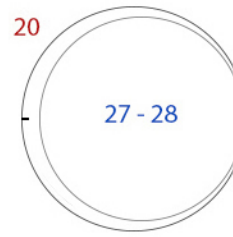
24



21



20

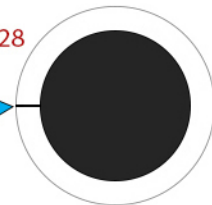


Bottom inside former
Glue to cardstock

27



28



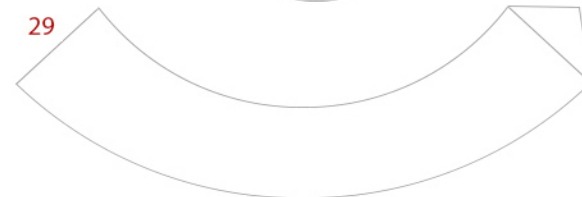
Match seems on
27 and 29 to this
black marker

Bottom former
Glue to cardstock

32



29



33



Color back Black

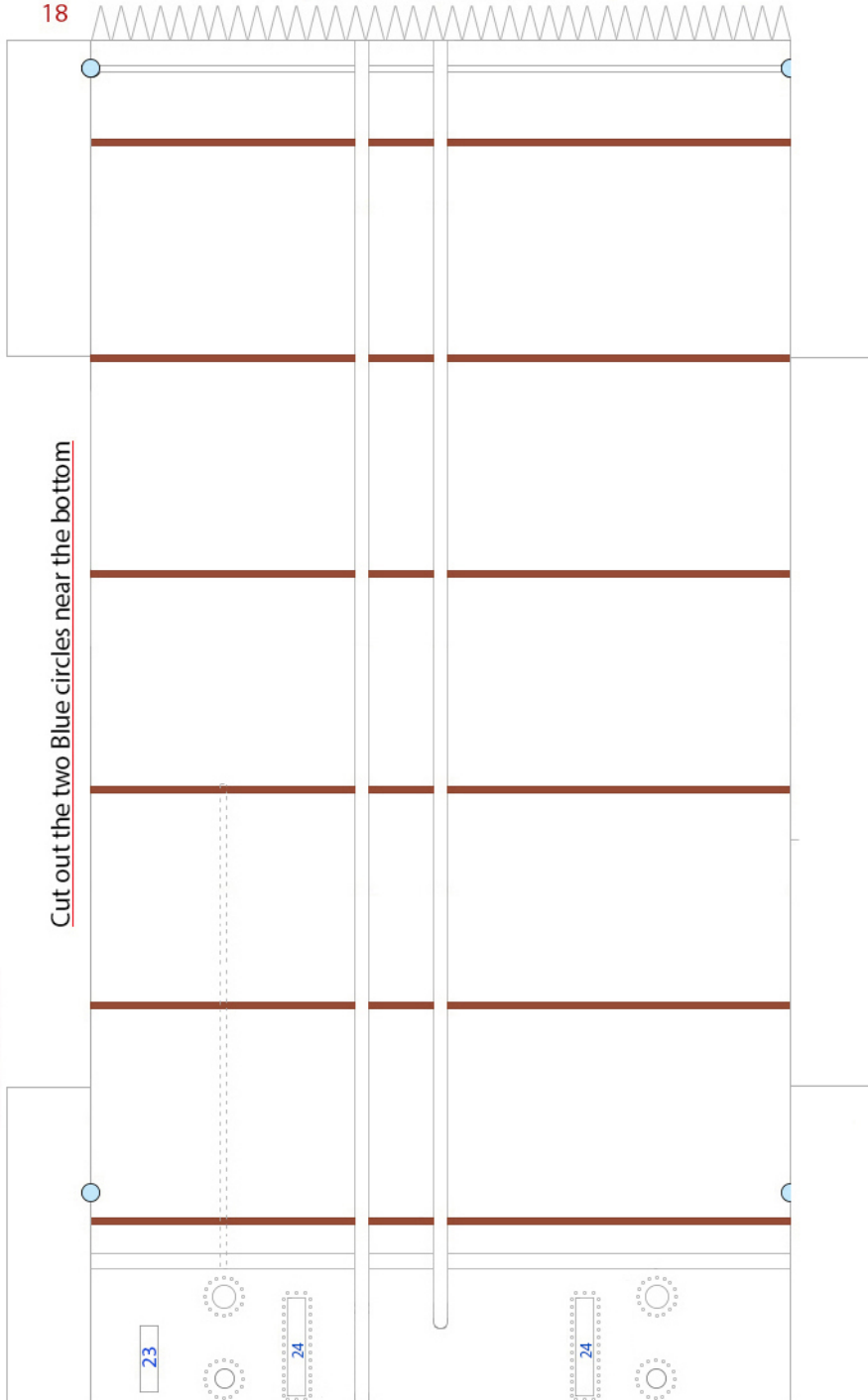


Titan III E

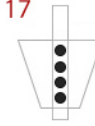
Cut out the two Blue circles

18

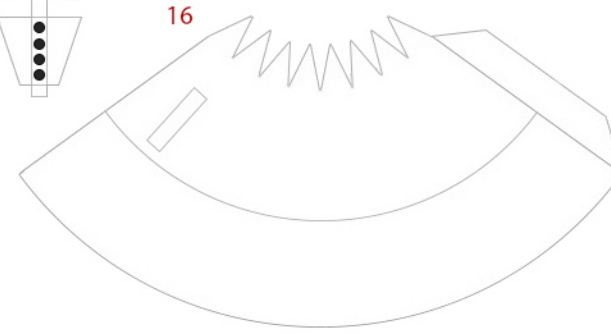
Cut out the two Blue circles near the bottom



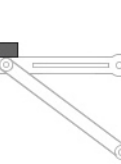
17



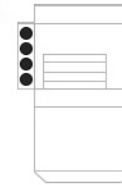
16



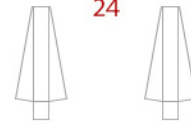
22



23



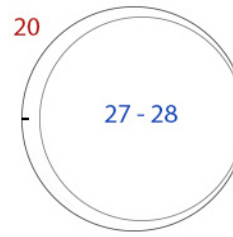
24



21



20

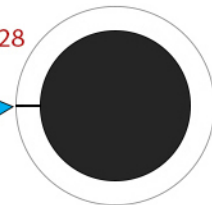


Bottom inside former
Glue to cardstock

27



28



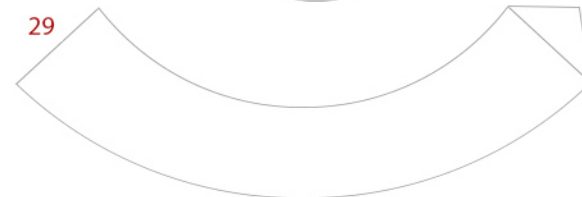
Match seems on
27 and 29 to this
black marker

Bottom former
Glue to cardstock

32



29



33



Color back Black

