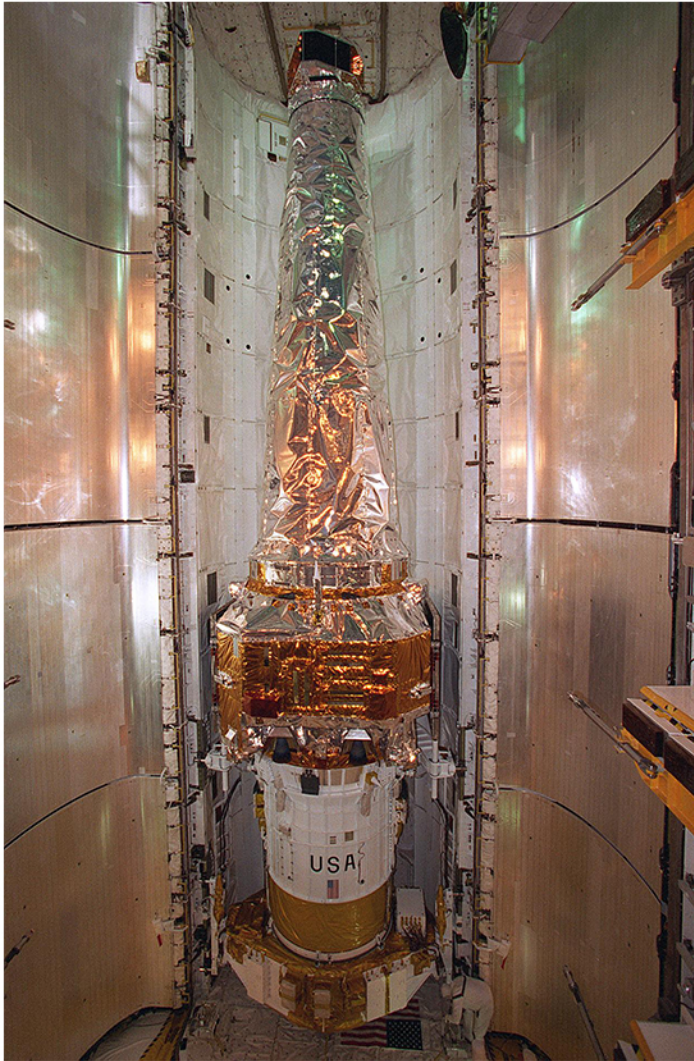


Chandra x-ray observatory



Chandra X-ray Observatory (CXO), previously known as the Advanced X-ray Astrophysics Facility (AXAF), is a Flagship-class space telescope launched aboard the Space Shuttle Columbia during STS-93 by NASA on July 23, 1999. Chandra is sensitive to X-ray sources 100 times fainter than any previous X-ray telescope, enabled by the high angular resolution of its mirrors. Since the Earth's atmosphere absorbs the vast majority of X-rays, they are not detectable from Earth-based telescopes; therefore space-based telescopes are required to make these observations.

Chandra is one of the Great Observatories, along with the Hubble Space Telescope, Compton Gamma Ray Observatory (1991-2000), and the Spitzer Space Telescope (2003-2020). The telescope is named after the Nobel Prize-winning Indian astrophysicist Subrahmanyan Chandrasekhar.

Chandra allows scientists from around the world to obtain unprecedented X-ray images of exotic environments to help understand the structure and evolution of the universe. The observatory not only helps to probe these mysteries, but also serves as a unique tool to study detailed physics in a laboratory that cannot be replicated on Earth. Already surpassing its five-year life, NASA's Chandra X-ray Observatory is rewriting textbooks and helping advance technology. NASA fuels discoveries that make the world smarter, healthier and safer.

Chandra has eight-times greater resolution and is 20 to 50 times more sensitive than any previous X-ray telescope.

10 interesting facts about Chandra...

Chandra flies 200 times higher than Hubble - more than 1/3 of the way to the moon.

Chandra can observe X-rays from clouds of gas so vast that it takes light five million years to go from one side to the other.

During maneuvers from one target to the next, Chandra slews more slowly than the minute hand on a clock.

At 45 feet long, Chandra is the largest satellite the shuttle has ever launched.

If Colorado were as smooth as Chandra's mirrors, Pikes Peak would be less than one inch tall.

Chandra's resolving power is equivalent to the ability to read a stop sign at a distance of twelve miles.

The electrical power required to operate the Chandra spacecraft and instruments is 2 kilowatts, about the same power as a hair dryer.

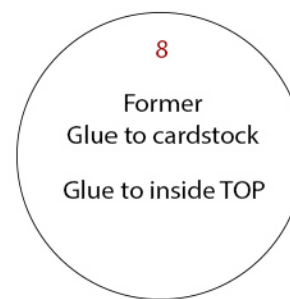
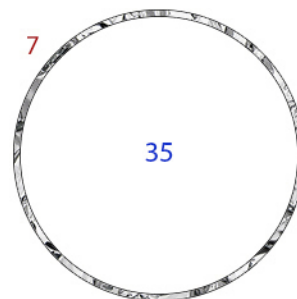
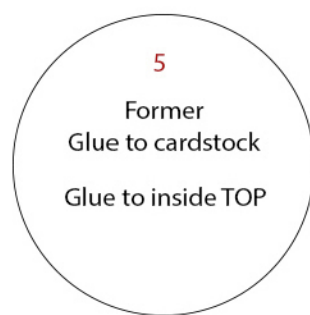
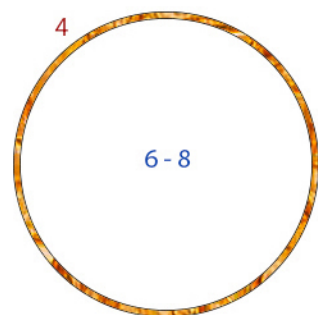
The light from some of the quasars observed by Chandra will have been traveling through space for ten billion years.

STS-93, the space mission that deployed Chandra, was the first NASA shuttle mission commanded by a woman.

Chandra can observe X-rays from particles up to the last second before they fall into a black hole.



Chandra x-ray observatory



Poke holes on the black dots.

Detailed version

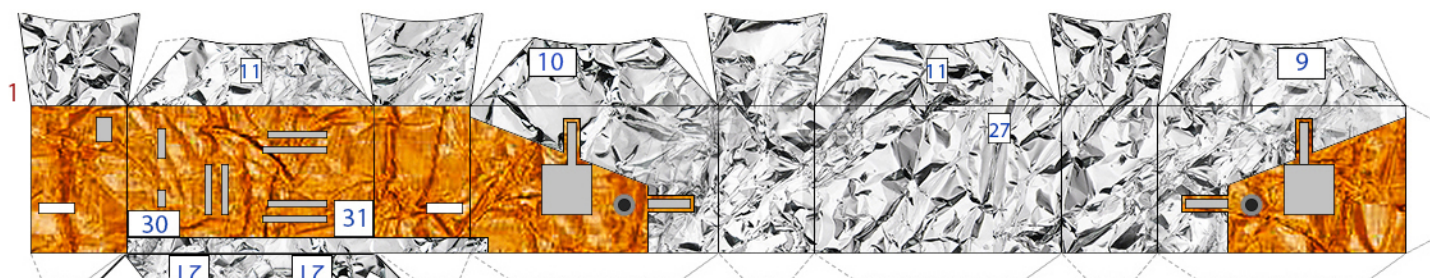


Need two acrylic rods or similar material around 1.6mm diameter cut at the same length as the line below, colored light grey or silver.

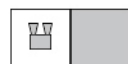
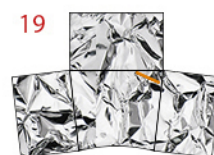
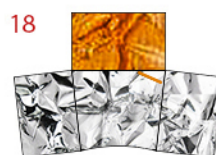
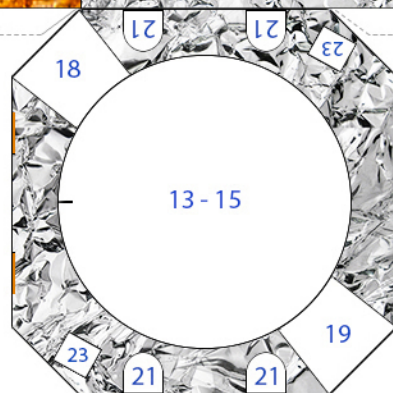
You can use the detailed version OR the easy version below.

12a Easy version

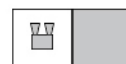
Glue each pair back-to-back



Poke small holes on the two black dots

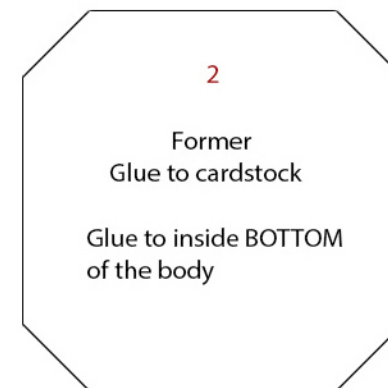


20

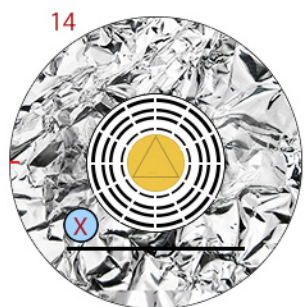


Fold-glue back-to-back

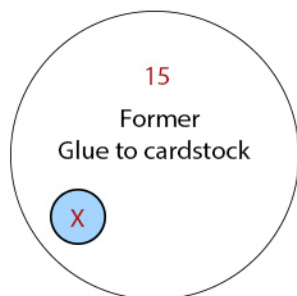
Fold-glue back-to-back



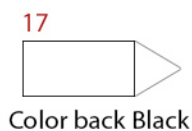
Chandra x-ray observatory



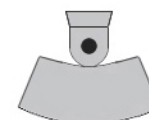
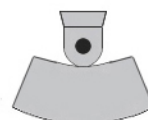
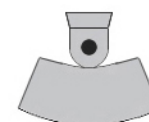
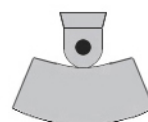
Cut out the blue circle



Cut out the blue circle



Color back Black



21

Color backside light grey or silver



Color back Black



23



25



26



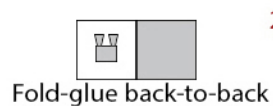
Fold-glue back-to-back



27

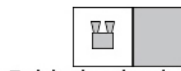


Fold-glue back-to-back



Fold-glue back-to-back

24



Fold-glue back-to-back



30



31



Glue to cardstock

*Spare



Glue to cardstock, cut out the blue circle and color the edges black.

Need two plastic broom straws or similar thin material cut at the same length as the line below, colored light grey or silver.





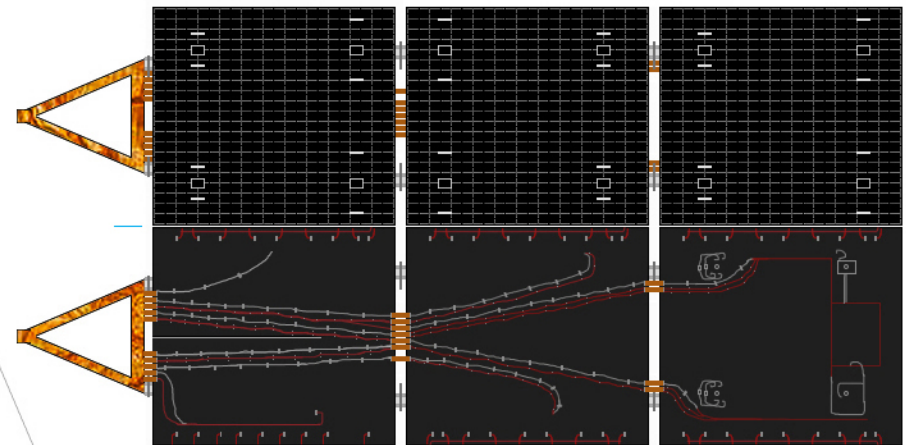
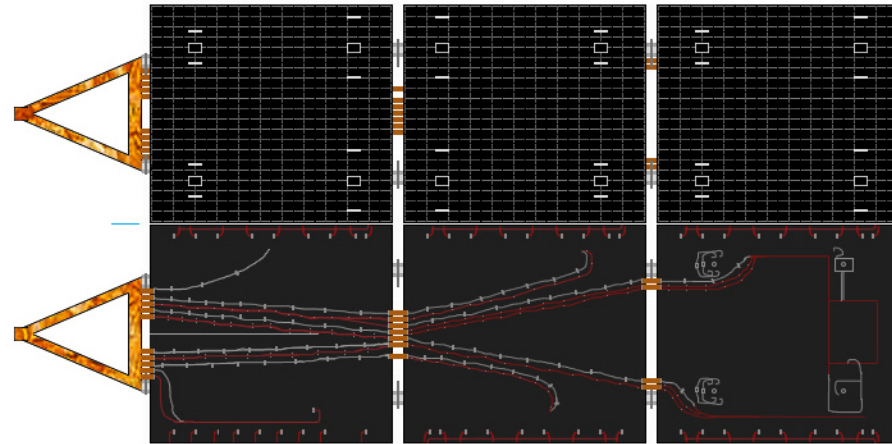
34



35



Solar Arrays
Score, fold-glue back-to-back



Cut music wire or similar thin wire the same length
as the line below for the solar array support rod.