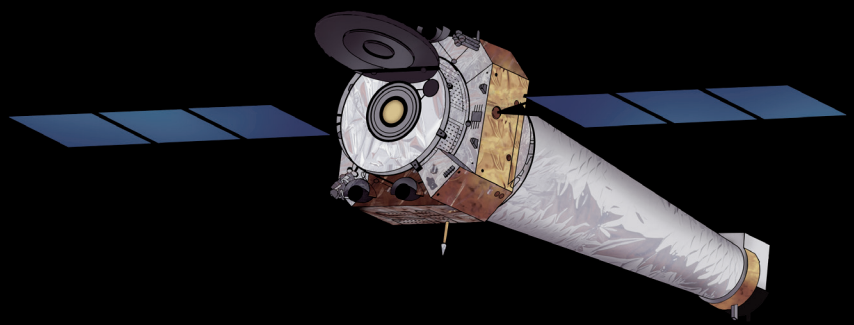
National Aeronautics and Space Administration

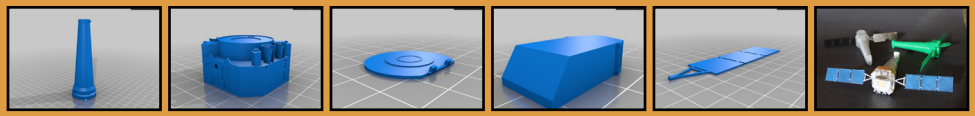
3D Print

YOUR OWN CHANDRA



NASA's Chandra X-ray Observatory, which was launched by the Space Shuttle on July 23, 1999, is a telescope specially designed to detect X-ray emission from very hot regions of the Universe such as exploded stars, clusters of galaxies, and matter around black holes. Because X-rays are absorbed by Earth's atmosphere, Chandra must orbit above it, up to an altitude of 139,000 km (86,500 mi) in space.

www.nasa.gov



3D files and instructions are available at

http://www.thingiverse.com/thing:631546

Select the 3D printer of your choice. This example (shown above) was printed at 0.1mm layer height, 8% infill, 2 perimeters. Take a piece of 3mm filament (or dowel) about 6mm long and glue into the centering holes. Align the parts as shown in the photos on **thingiverse.com**.

To make your 3D printed model more photorealistic you can spray the craft with silver metallic spray paint and/or apply aluminum or thin craft store foil before assembling. Gold paint or ready gold leaf from a local craft store or online store can be added if desired. Rubber cement works well to attach materials to the body of the spacecraft. For the solar panels, you can apply a blue or black glaze or paint. Quick tip: attach the solar panels last.

chandra.si.edu/3dprint