

# NSTX-U Fun Facts

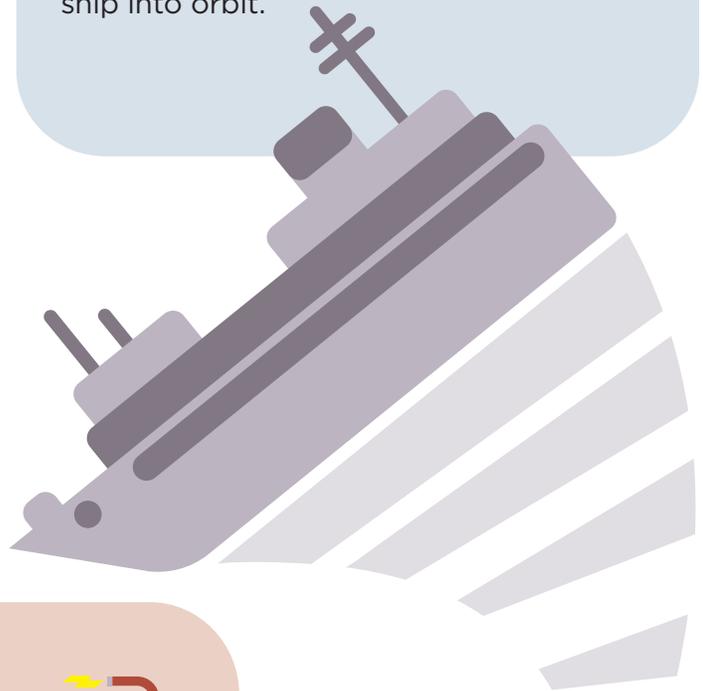
## Heart of the upgrade:

The NSTX-U center stack consists of 36 22-foot-long, 350-pound copper conductors.

## Plenty of juice:

The 2 million amp current that will flow through the plasma could light 2 million 100-watt bulbs.

**Up and away:** The two 700-ton flywheels that power the NSTX-U could put a naval ship into orbit.

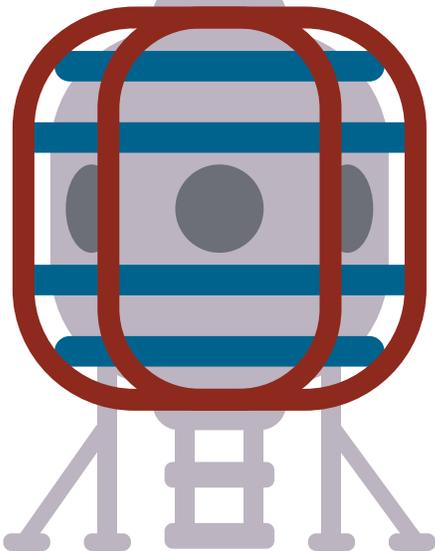
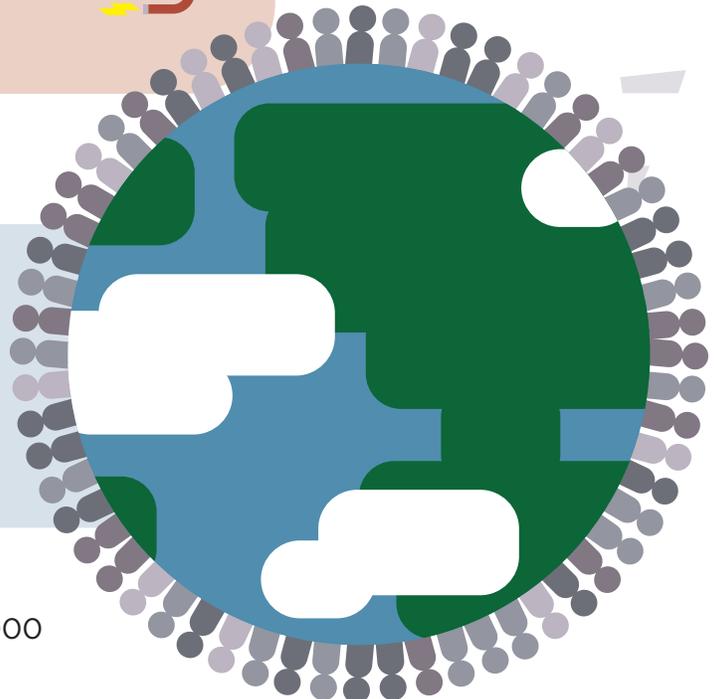


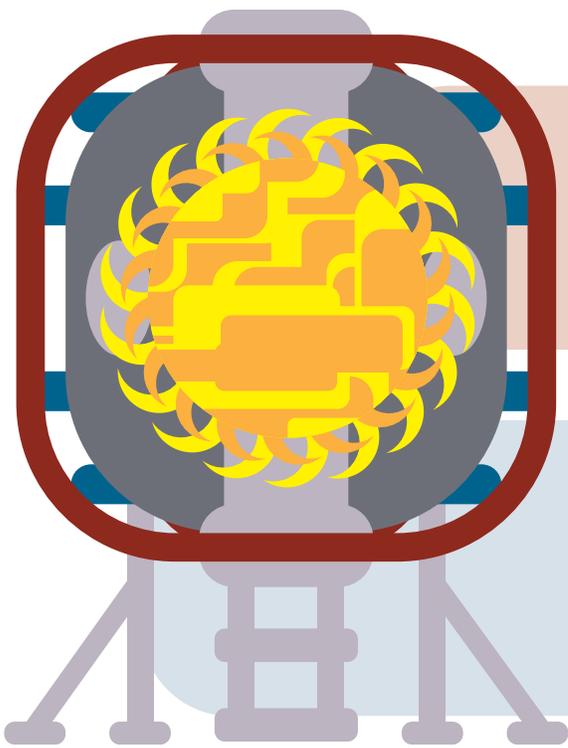
**Rules of attraction:** NSTX-U magnets are 20,000 times stronger than the Earth's magnetic field.



**All together now:** 60 research centers around the world will collaborate on NSTX-U.

**Time flies:** Technicians spent more than 360,000 worker hours building the NSTX-U.





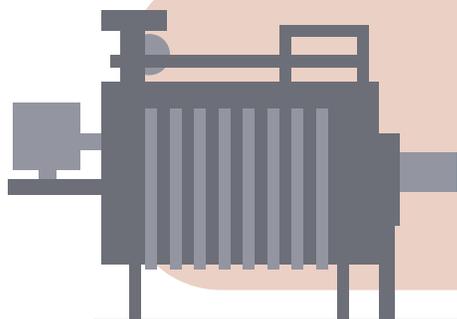
**Sunscreen won't help:**  
Temperature inside the NSTX-U will exceed the 15 million degree Celsius core of the sun.

**Space age material:**  
Graphite tiles inside the NSTX-U are similar to those used on the outside of space shuttles.

**Fast shots:** High-speed cameras that photograph NSTX-U plasmas can record 10,000 images per second.

**Faster shots:** The same cameras can record up to 400,000 images per second when researchers want to see plasma turbulence.

**Many experiments:** Researchers will run NSTX-U experiments every 10 to 15 minutes, or more than 30 times a day.



**Elephantine task:**  
PPPL installed a second neutral beam box that weighs 75 tons, or nearly 13 average-size male African elephants.

