

1. UY Scuti

Enormous Size: UY Scuti is one of the <u>largest stars we know (738,350,000mi)</u>. If it were placed at the center of our Solar System, it would stretch past Jupiter's orbit.

Changing Brightness: UY Scuti is a variable star, meaning its **brightness changes over time** due to activity within the star.

Far Away but Visible: UY Scuti is about <u>9,500 light-years from Earth</u>, in the constellation Scutum, and can be seen through a telescope.



2. VY Canis Majoris

Supergiant Star: VY Canis Majoris is a <u>red hypergiant (613,850,000mi)</u>, one of the biggest and brightest stars in our galaxy.

Short Life: Because of its huge size, <u>it uses up fuel quickly</u>, so it won't live as long as smaller stars.

Material Shedding: The star is constantly <u>losing massive amounts of material into space</u>, forming a cloud around it. This process will eventually lead to an impressive supernova explosion.



3. Tabby's Star (KIC 8462852)

Unusual Dimming: This star sometimes <u>loses up to 22% of its brightness at random times</u>, and scientists aren't sure why.

Alien Theory: <u>Some people have suggested that an alien structure might be causing the dimming</u>, but natural causes like dust clouds are more likely.

In Cygnus: Located about <u>1,470 light-years away in the constellation Cygnus</u>, this star is still being actively studied.



4. PSR J1748-2446ad (Fastest-Spinning Pulsar)

Incredible Speed: This pulsar spins an amazing 716 times per second, setting a record.

Extreme Density: It's a neutron star, so it's incredibly dense—<u>holding about 1.4 times the Sun's mass in a tiny 10-kilometer radius</u>.

Precise Timekeeper: Its stable rotation makes it <u>very useful for precise time measurements in space research.</u>



5. Betelgeuse

Possible Supernova: Betelgeuse is a red supergiant star in the constellation Orion. **It could explode as a supernova within the next million years**, though this timeline is uncertain.

Recent Dimming: In 2019, <u>Betelgeuse suddenly dimmed</u>, which made scientists wonder if it was close to exploding. However, it eventually returned to its usual brightness.

Enormous Size: Betelgeuse is <u>incredibly large (765 million miles)</u>. If we put it in place of our Sun, it would be big enough to reach beyond the orbits of Mercury, Venus, Earth, and even Mars.