Hubble trouble: Deep space telescope in ‘safe mode’ after mechanical fail

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It’s been used to date the galaxy and study black holes but now NASA’s Hubble Space Telescope is taking a break from activities due to a mechanical fault.

Launched into deep space in 1990, the large, long orbit telescope is packed with instruments like cameras, spectrographs and interferometers to clear up mysteries of the universe. But now NASA has been forced to place one of it’s prize assets into ‘safe mode’ due to the malfunction of a gyroscope used to balance and navigate the $2.5 billion telescope.

In a statement NASA allayed fears by saying the telescope can still carry out scientific operations with one gyro but that activities onboard the orbiter had been suspended to give engineers a chance to fix the fault.

The Hubble Space Telescope in orbit ©NASA

“Hubble entered safe mode after one of the three gyroscopes actively being used to point and steady the telescope failed. Safe mode puts the telescope into a stable configuration until ground control can correct the issue and return the mission to normal operation,” NASA said in a statement.

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Built with multiple redundancies, Hubble had six new gyros installed during Servicing Mission-4 in 2009. Hubble usually uses three gyros at a time for maximum efficiency, but can continue to make scientific observations with even just one gyro.

NASA became aware of the issue last Friday when a gyro, already displaying ‘end of life’ behavior, went out of action. The 28-year-old Hubble Telescope has been key to NASA and independent research of space.

The instrument, named after astronomer Edwin Powell Hubble, has been celebrated for its involvement in tracking asteroids, analysing the Kuiper Belt and documenting the nebula of dying stars.

Amateur astronomers have also been given access to Hubble for research purposes. In a well known case back in 1993, 80 astronomers were allowed to use the telescope to study the transition of comets in to asteroids.