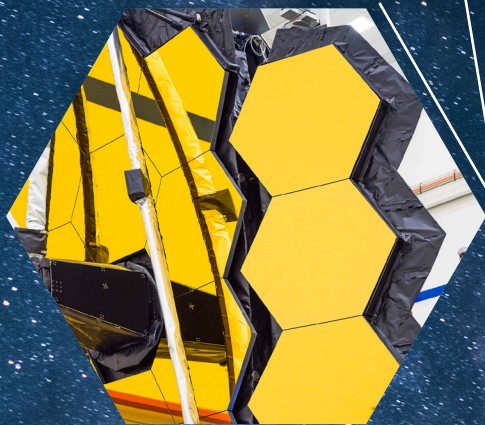




# / Celebrating an Upcoming Decade of Space Exploration

The US Space Force is developing technologies to learn more about the way planets form (or formed) billions of years ago by gathering space and planetary data such as types of gasses and densities, planetary atmospheric makeup, water content, and other galaxy-building factors, as far away in space as possible. To help us see even deeper into space—and farther into the past—there are three initiatives currently ongoing:

## 2021 James Webb Space Telescope



Uses folding mirrors designed in a Hexagon fashion

Infrared telescope

Longer wavelength coverage and improved sensitivity

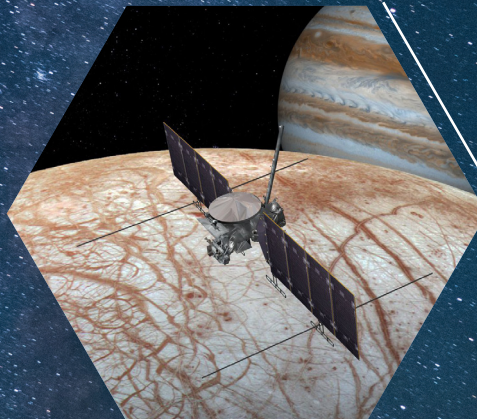
Designed to look closer to the beginning of time and hunt for the unobserved formation of the first galaxies. Will look inside dust clouds at where stars and planetary systems are still forming today.

Will look at 1000's of the most distant quasars and their host galaxies.

Will be available globally. Still in testing, but supposed to launch later this year.

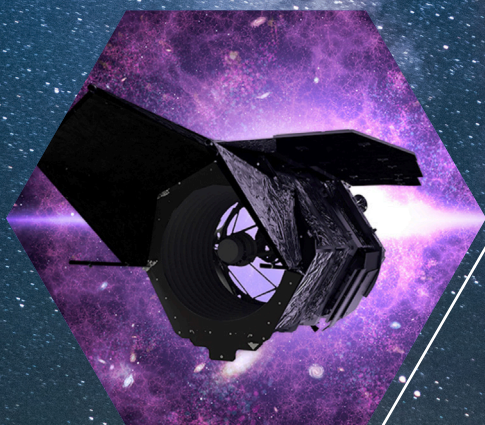
Expected to be capable of seeing more than 13 billion years into the past.

## 2024 Europa Clipper



Spacecraft called the Europa Clipper will launch to get a better read on one of our outer-most planets and moons.

The Dragonfly mission will explore Jupiter and Europa (holds 2x as much water as Earth) and Titan (complex organics and two solvents, water and methane.)



## mid 2020's Nancy Grace Roman Space Telescope

The Nancy Grace Roman Space telescope will be an infrared sky survey telescope, named for the "Mother of Hubble" (Dr. Nancy Roman, NASA's first chief astronomer), collecting meaningful findings for billions of stars and galaxies across the sky.

It uses 24 "detectors" to convert starlight into electrical signals, which will be decoded into 300- megapixel images of patches of the sky.

2.4m telescope (same size as Hubble) but with a view 100x greater

Will measure light from a billion galaxies over its lifetime

Expected to find 2,600 exoplanets

5-10 year lifespan expectation

