Space Telescopes

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Abstract : We present thoughts about the James Webb telescope.

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Finally the James Webb space telescope has been launched. It is very expensive, about 10 billion dollars. This is because the telescope has movable parts. This is because NASA has decided to launch the telescope in one piece. Therefore it has to be interfolded to suit the telescope into the carrier rocket. In space then it has to be exfolded again. A satellite with movable parts is difficult to design, to construct and to test. A better idea is to design it without movable parts. The telescope can be launched into space with multiple rockets. The orbit should have a height above 1000 km to avoid space junk. There it will be put together either automatically or by astronauts. Afterwards it will be transported to a Lagrange point by its own propulsion system. Instead of 18 small mirrors which form one big mirror it can have several small mirrors, which are located anywhere on the telescope. They can have a vernier adjustment afterwards. I believe that by this way NASA save billions of dollars.
There are plans for a new space telescope, which is called *LOVOIR*, but this is like the James Webb telescope, only larger.

I had another idea. To gaug the Webb telescope it would be useful to position the telescope on earth to identify ozone or on Mars or Jupiter, and to measure which gases can be detected. This would be not a real calibration, since the distance between objects in our solar system and Webb is small, while the distances between Webb and exoplanets are large.

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