The Transporter

If we ever want to become an interplanetary species, then we are going to need a way to send provisions to settlements outside of Earth; for example, the moon and Mars. With our current technology, it is impossible to send supplies at or close to the speed of light. There is no ship or rocket that can travel at or close to the speed of light. In fact, it is impossible for anything with mass to travel at the speed of light, because it requires an infinite amount of energy. Furthermore, even if we could get a spaceship to travel at the speed of light, the acceleration alone will destroy almost everything. And, accelerating at the safest, but quickest, possible rate will take thousands of years to reach the speed of light, and then thousands more to decelerate. Without breaking the laws of physics, only waves and particles can travel at the speed of light. This is what a lot of science fiction movies get wrong; space travel. The biggest cinema sinner is Star Trek. In Star Trek, the USS Enterprise is hopping through galaxies at the speed of light, and repeatedly, faster than light. Regardless, both are physically impossible to do given the current laws of physics. However, even though the USS Enterprise can't realistically travel at the speed of light, something else on it might be able to – The Transporter.

The Transporter is a teleportation device aboard the USS enterprise. It enables things, mainly humans, to travel at the speed of light. Through the process of dematerialization, it converts an object into energy, transmits it to a destination, where it is reconstructed into the original object (Millis, 2019). Even though this machine is purely fictional, famous physicist and science journalist, Michio Kaku believes that something like the Transporter is plausible and will be developed in the next century

(Millis, 2019). However, using this machine on humans is a whole different can of worms and its best to leave it be and discuss the potentials of beaming inorganic objects. Sending stuff, like basic necessities, to settlements on Mars will greatly aid in turning it into a self-sustaining civilization. Communication time between Earth and Mars varies from 4 to 24 minutes. Imagine being able to send important tools, like a hammer, to Mars, in roughly 30 minutes. That's even faster than Amazon's 2-Day Delivery! A machine like the transporter is the key to becoming an interplanetary species. Furthermore, if we combine this with asteroid mining, we can send an enormous amount of supplies to settle Mars and create a successful self-sustaining civilization.

References

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