FASTER THAN LIGHT TRAVEL IS POSSIBLE; CREATING THE WARP DRIVE

Scientists have long speculated on the potential of faster than light travel. If we really want to colonize other planets without terraforming lifeless rocks like Mars we are going to have to find faster forms of interstellar transportation. With our current capabilities it would take hundreds, or in most instances, thousands of years, to travel to even the closest star. We would begin an expedition to another star and our great grandchildren would complete it.

Because matter cannot travel faster than light without a near infinite amount of energy being used, scientists must use a loophole in the laws of existence. Space-time itself, or the reality that light exists in, is able to expand faster than the speed of light, as it did just after the big bang and possibly still does.

Scientists have proposed an Alcubierre drive, or a device that contracts space-time in front of a ship and expands it in back.

This would allow the ship to, while still traveling slower than the speed of light, cover distances near instantaneously. It's nearly identical to the concept of a wormhole. Imagine there is a point A and a point B on each side of a sheet of paper. What is the quickest way to get from point A to point B? Fold the paper so that the two points touch. The ship would still obey relativistic laws, but space-time itself would be manipulated to meet the demands of the ship.

This is all amazing, but how much energy would this require? According to the original Alcubierre drive plans, roughly an amount of energy equal to the mass-energy of the planet Jupiter. But, scientists are now saying that by slightly altering the shape of the drive into a donut-shape instead of a circular-shape, the required energy would be closer to that of a normal rocket launch.

Scientists have begun experimenting with miniature warp drives in order to begin the development of the technology.

It may sound like science fiction, but remember, there was a time when moving pictures were science fiction, when going to the bottom of the ocean was a fairy tale, and when traveling to the moon was viewed as downright impossible. Nowadays we are bored of going to the moon, we speculate on how many dimensions reality is composed of, and send robots to Mars. Whenever humans imagine, creation is not far off.

Source: http://wondergressive.com/faster-than-light-travel-is-possible-creating-the-warp-drive/