

Riding a Beam of Light

[Riding Light](#) from [Alphonse Swinehart](#) on [Vimeo](#).

In our terrestrial view of things, the speed of light seems incredibly fast. But as soon as you view it against the vast distances of the universe, it's unfortunately very slow. This animation illustrates, in realtime, the journey of a photon of light emitted from the surface of the sun and traveling across a portion of the solar system, from a human perspective.

I've taken liberties with certain things like the alignment of planets and asteroids, as well as ignoring the laws of relativity concerning what a photon actually "sees" or how time is experienced at the speed of light, but overall I've kept the size and distances of all the objects as accurate as possible. I also decided to end the animation just past Jupiter as I wanted to keep the running length below an hour.

[Vimeo](#)

You're riding on a photon, a single "particle" of light.

You leave the sun's surface, flying away at (naturally) the speed of light, or approximately 186,000 miles/second (299,792,458 meters/second).

You'll cross the orbits of Mercury and Venus. After 8 minutes 17 seconds, you'll finally cross the orbit of earth and begin heading toward Mars. By the time your first hour has gone, you'll have flown almost seven billion miles. Far past mighty Jupiter and heading toward Saturn.

The hour-long video ends with you heading for Saturn, Uranus,

Neptune, and the stars.

Here's what you see as you look backwards toward the sun, getting farther and farther away.

Source

- [Vimeo](#)