

CONFIDENTIAL

DO NOT SHARE OUTSIDE OF GOOGLE



What is Project Flux?

With Project Flux our goal is to give everyone the ability to explore any place and any time, no matter where—or when—they are.

It builds on Google's mission to make information universally accessible and useful by giving people a front row seat to experience anything they are curious about.



Google's Mission

To make the world's information universally accessible and useful.

- We've made tremendous strides toward making anything in the world discoverable by anyone, anywhere, anytime
 - E.g., Search, Street View, <u>Google Books</u>, <u>Art Project</u>
- Virtual reality technology now lets us feel "like we are there"
 - E.g., Google Cardboard and Expeditions
- Teleportation is only an incremental solution to make the world universally explorable
- Flux—the result of years of research by a team of physicists, materials experts, chemical and electrical engineers, as well as ethicists, historians and philosophers—is designed to be a 10X solution

⊕ ⊙
●
●
●
PROJECT FLUXTechnology



Chronocompression

- Project Flux uses a proprietary chronocompression technology to instantly transport the user to a place and time of their choosing.
- It consists of a chronocompression device, time circuit mechanism and power node (PU-93)



Time Circuits

- Properly secured in the capsule, the user activates the time circuits panel, turns on the PU-93 and inputs their destination.
- Soon we will support a variety of destination input modes including voice.



Power

- When the power node reaches 1.21 x 10^9 watts, the capsule will launch at a speed of 141.62 km/hr.
- The user instantaneously and seamlessly arrives at their destination.
- At the origin destination, the capsule will simply disappear, with only a mild thermal displacement.

⊕ ● PROJECT FLUX ⊕ ● PROJECT FLUX Chronocompression Device





Initial tests performed with control watches under intense scrutiny have been successful with over 3,306 years traveled across test flights.

Unsafe travel with Flux can have serious repercussions on future events, up to and including erasure from existence. To understand causes of post-future disruption all tests were performed double-blind in which two or more users travel to the same space-time to make specific interventions (or none). Present observers were positioned to evaluate any changes and abort travel if necessary.

So far we have managed to limit post-future disruption to three minor cases, all of which were manageable through re-intervention. However, in order for Flux to be scalable as a consumer MVP, we have redesigned the product with built-in shields and safeguards to prevent users from any interventions in any space-time.

• PROJECT FLUX Early Tests: Locations



Sonora, California Sep 2, 1885 T: 08:00 37° 58' 58.619" N 120° 22' 55.82" W



Courthouse Square Jun 13, 1931 T: 10:40 34° 8' 29.1" N 118° 20' 59.18" W



South Pasadena, California Nov 12, 1955 T: 22:04 34° 6' 19.813" N 118° 8' 28.451" W



New Peabody Ranch Oct 26, 2010 T: 08:00 34° 22' 34.878" N 118° 28' 42.121" W



Lou's Diner Nov 5, 1955 T: 08.29 33° 58' 47.345" N 118° 2' 38.82" W



Hill Valley, California Oct 26, 1985 T: 01:35 33° 59' 36.982" N 117° 55' 39.19" W



- Our tests show that post-future disruption due to intervention occurs in 2.5% of cases where the user a) travels 30 or fewer years and b) has a genetic or emotional connection to subjects at the destination. Our public prototype vehicles have been designed to prevent these occurrences.
- Early reentries were a little bumpy. This has since been eliminated.
- Some travelers report mild "jetlag" resulting from time-based variations in the Earth's gravitational pull.
- Travel has no effect on the molecular structure of the user. It is completely intact.
- To shield eyes against the light emitted by the chronocompression device, travelers should wear wraparound protective glasses.
- Travelers should be prepared for any eventuality; headgear, personal documentation, monetary possibilities and spare cotton clothing are recommended.
- Those with sugar sensitivities should travel with their own Tab or Pepsi Free.

Early tests were performed on a small scale with capsules made from used pinball and refrigerator parts and materials typically used for space travel. Now we will be inviting members of the public (flyers) to test new prototype capsules we've designed in our workshop. After testing 11 prototypes, we have completed the design for our public test capsules (code-named DMC-12s), which will feature:

- A stylish, stainless-steel construction to maximize dispersal
- A minimum travel distance of 30 years
- A safety-lock shield to prevent any user intervention
- An innovative backup power source (MF-93) to protect against time-stranding
- A simple, push ignition (our first 11 prototypes had faulty starters)
- Modular wheels for any terrain

ଡ଼−ତ ଡ଼−ତ PROJECT FLUX

Public Testing Phase: Prototype Capsules



We will be building 7 prototype vehicles, for which we are sourcing the following materials (among others):

- 9.8 tons of SS304 stainless steel (aids in the flux dispersal)
- 2.1 tons of S-Glass Epoxy composite fiberglass
- 12.18 meters of 0.046 mm-diameter Tungsten filament wire

Regardless of distance to destination, each round-trip requires 2.42 GW of power. As Google made a commitment to be carbon neutral in 2007, we will be obtaining as much as possible of the power required for Flux trips from renewable sources. The vehicles are electrical (only requiring a reaction to generate the necessary power to the node), and the capsule's innovative backup power source relies exclusively on biofuels. It is crucial to work with regulators to ensure all concerns are addressed and smart legislation put in place to minimize past interventions and other issues. Some key issues that may arise:

- Aviation and transportation regulations
- Environmental and energy regulations
- Security (preventing against destination hacking by bad actors)
- Public health
- Intellectual property rights and patent law
- Gaming law

PROJECT FLUX Public Testing: Timeline

Goal

88 public test flights by mid-2016





