

When you step onto the IMPULSE CIRCUIT, you may begin to notice something different about your commute. Grab a hold of a handle or bar to feel a slight pulsation that begins to mirror your heart rate. In another moment, the hidden LED lighting system that surrounds you will begin to glow in syncopation to your body's natural rhythm. You are the manipulator; you are in control of this ephemeral experience.

im•pulse

OPTICAL BIOFEEDBACK COMMUTER INTERFACE

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The IM•PULSE Experience

Upon entering the IM•PULSE Circuit, commuters will notice something different about their commute. As the subway car moves forward, a commuter grabs hold of a handle and begin to see a pulsation that mimics their heart rate. In the next moment, blue light from the handle glows in time to the body's natural rhythms. The commuter is now a part of this ephemeral experience.

Technically Speaking

The IM•PULSE Circuit is a haptic and optical experience that takes place within subway cars. Heart rate monitors, placed within translucent DuPont Corion handles and poles, pick up an individual's pulse. The PPS Pulse Sensors, PulseTact, record the pulse rhythms in real time. The beats per minute are translated into a corresponding intensity of blue LED lights that run along the interior of the poles and handles. When a commuter's pulse is faster, the blue light is brighter and pulsates at a higher frequency; when a pulse is slower, darker blue tones beat at a slower pace.



IM•PULSE Circuit is a subway car that uses existing technology to monitor a commuter's heart rate. A commuter's pulse is mimicked in the changing hues and intensity of blue LED lights within handles and poles on the car.

The IM•PULSE Circuit makes a typically isolating experience fun and engaging.

The IM•PULSE Circuit is comprised of technologies that are existing and accessible.

The IM•PULSE Circuit is part of the green movement by promoting the use of public transportation.

The IM•PULSE Circuit encourages good health as commuters choose to take steps toward a more relaxed state. An awareness of heart rate is the first step to understand the causes of stress.

IM•PULSE Participation

This installation is for anyone who uses public transportation. It functions as a biofeedback machine by allowing individuals to become aware of their own body rhythms. Given this information, some may use calming techniques to affect the light, while others will move and jump to create higher frequencies. The IM•PULSE Circuit will generate communication among isolated commuters because a vital internal function of the body becomes a shared spectacle. The experience continues online where a subway map shows the IM•PULSE Circuit line traveling throughout the city. The aggregated data of all commuters' heart rates are tracked in real time and indicated with a corresponding hue of blue.

Further Development & Other Applications

This installation is intended to be utilized for any subway transit line. There is an opportunity to extend this project to any city that has public transportation, especially in crowded, hectic environments like buses, trains, people movers and airplanes.