

# Urth-Routes Mission Statement

Urth-Route is a navigation app focused on sustainable solutions to transportation by promoting the use of alternate transportation modes to stay healthy and reduce your carbon footprint. By informing users of their estimated emissions released for their trip, users can reflect on their contribution to their carbon footprint and climate change.

We encourage the use of alternative transportation modes such as walking, running, and cycling, which release zero emissions. By showing the convenience and accessibility of biking with the inclusion of Community Access Bikeshare stations and bicycle parking locations across the region of Waterloo, communities can be empowered to having active and greener lifestyles.

## Application Characteristics

Urth-Routes is more than just your average navigation application. The purpose of Urth-Routes is to encourage commuters to choose more sustainable modes of transportation and promote an active lifestyle by reassessing their daily commutes. With fewer cars on the roads, harmful greenhouse gas emissions that contribute to climate change can be reduced.

### Find Your Route

Find directions for the best route from point A and point B that suits your needs. The route can be configured for shortest driving distance or time, walking distance or time, as well as additional options for rural driving and trucking. Additional waypoints may also be added for extended trips that include more desired stops.

### Know Your Carbon Footprint Contribution

Transportation is the source of 14% of global greenhouse gas emissions primarily due to the burning of fossil fuels as 95% of the world's transportation is powered by non-renewable resources (Environmental Protection Agency, 2017). The carbon dioxide emissions for the user's specified route is calculated by the total driving distance and approximated average fuel efficiency of an average small car; further elaborated in the methodology section. The user can then consider their impact and the contribution of their car emissions to their carbon footprint. Raising awareness of emissions on environmental deterioration can inspire more people to choose alternative modes of transportation that emit less or have zero emissions such as by carpooling, travelling by foot, or bicycle.

## Choose to Be Healthy

Alternative, eco-friendly choices of travel are out there but are often thought of as slow or a hassle. Urth-Routes reminds us of the benefits of going off the beaten path and opting to fit in some exercise by walking, running, or biking to our destination. To make it easier for users to plan out their journey, bicycle parking, and Community Access Bikeshare stations for cyclists in the Region of Waterloo are included in the application's map as well. Urth-Routes is designed to help citizens take the route less traveled and leave their car at home. Getting back to earth's roots, one may even discover a new trail or park along the way while enjoying the great outdoors.

## Customize the Estimates

The user can adjust the vehicle emission calculations and calorie estimates by changing the values in the Customize tab of the app. This allows for greater precision if the user wants to know the exact emission estimates of their route and how much calories they can burn if they choose to take a sustainable mode of transportation.

## Sources

Environmental Protection Agency. "Global Greenhouse Gas Emissions Data." *EPA*. Environmental Protection Agency, 14 Feb. 2017. Web. 24 Feb. 2017.