

Astral Automation





The Problem

Accessibility is a major hurdle for effectively transporting items in remote regions

The Solution.

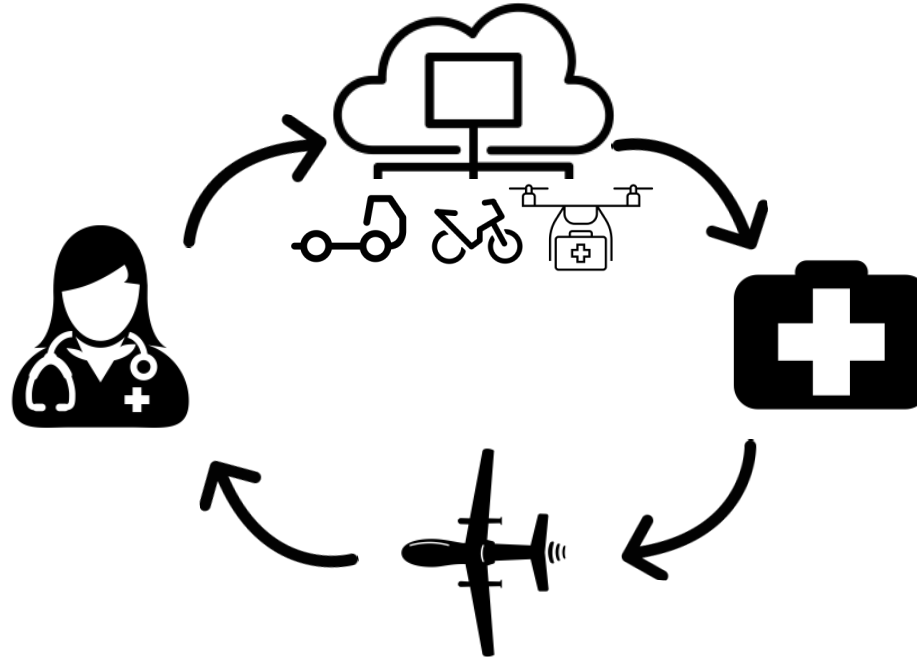
A platform that optimizes supply routes across a network of vehicles ranging from ground vehicles to autonomous drones, providing an end-to-end delivery solution that saves our users time and money.



How it works

Cloud platform picks vehicle type and routes available vehicle to nearby hospital.

Clinic requests
1L of blood.

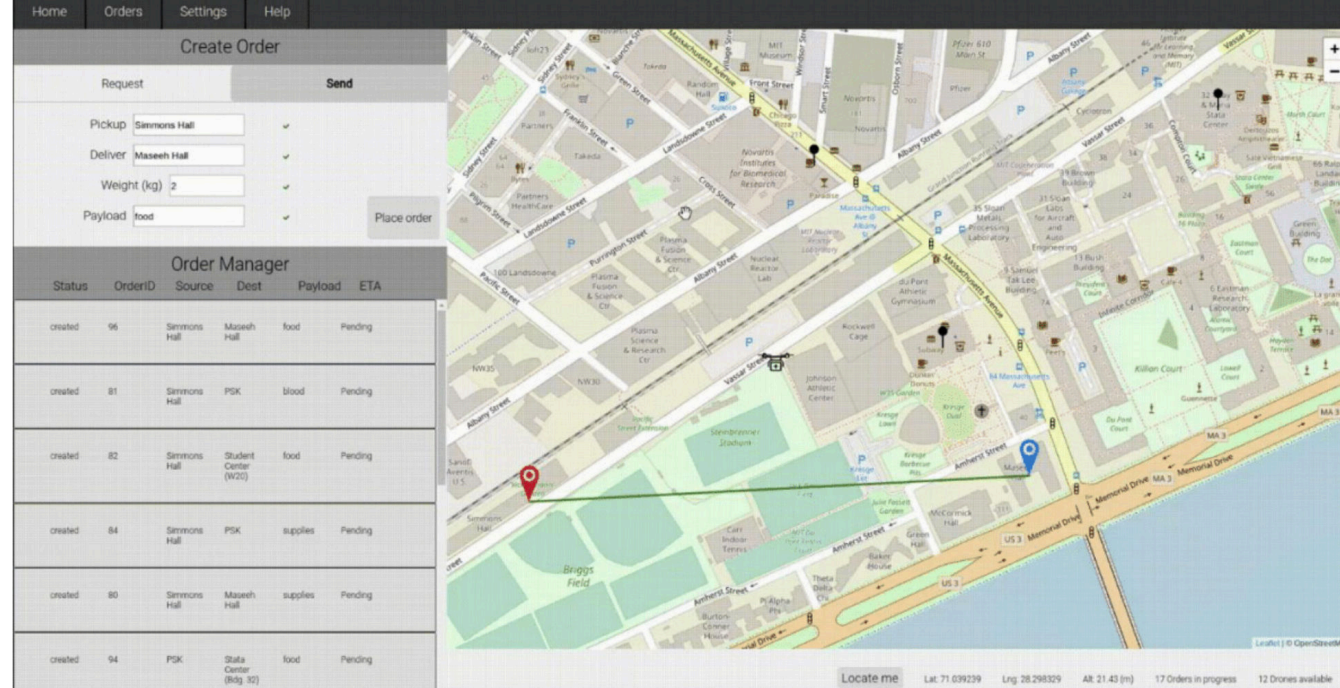


Hospital loads
package.

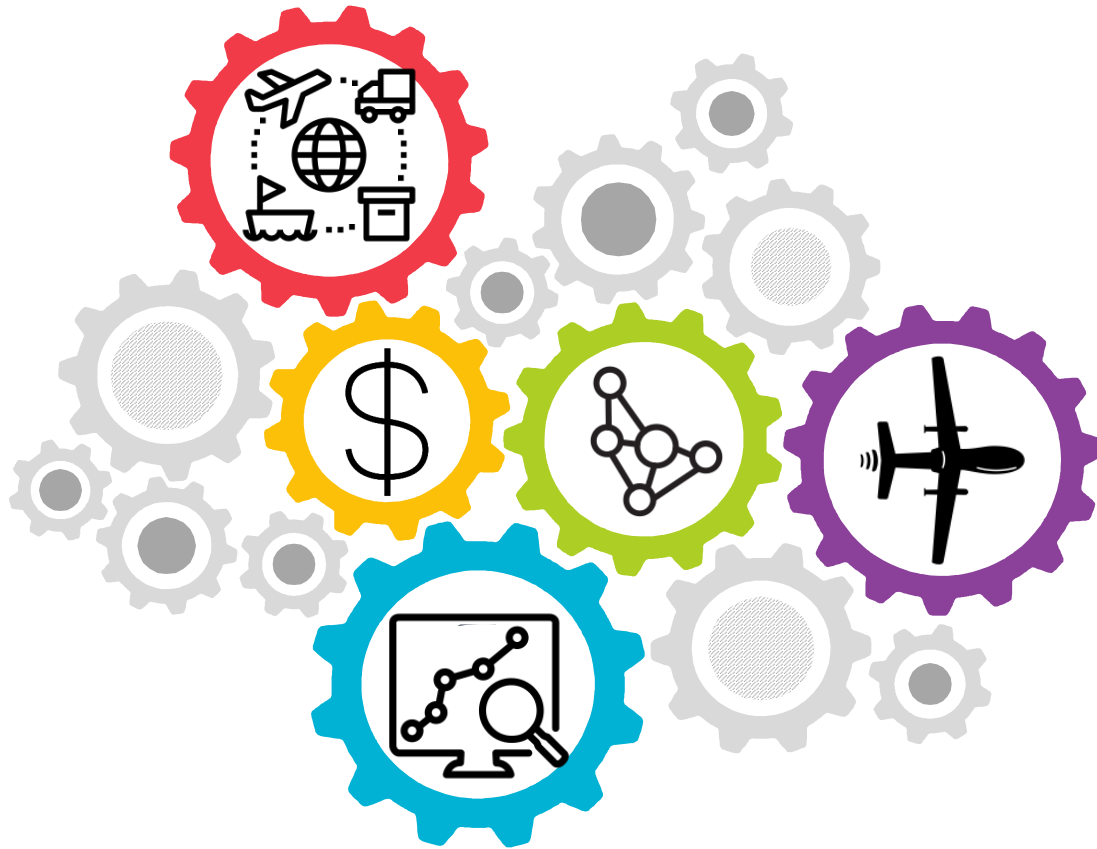
Drone deployed and is
unloaded at clinic.

The Technology

Astral coordinates ground transportation with autonomous drones to provide a rapid, inexpensive, and on-demand delivery solution. This enables remote clinics to get the supplies they need quickly, and at a lower cost. Our technology utilizes route optimization algorithms and a suite of sensors on our drones to provide reliable transport every time.



Key Differentiators



FLEXIBLE

Platform that incorporates a variety of vehicles for varying terrain and conditions.

AFFORDABLE

Our platform continuously monitors drones and optimizes routes based on weather conditions and vehicle availability.

SOFTWARE

Optimized ground transport and logistics

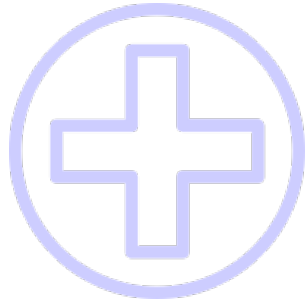
RELIABLE

Our platform continuously monitors drones and optimizes routes based on weather conditions and vehicle availability.

ACCESSIBLE

Travelling at 100 km/hour, our drones cut down hour-long ground deliveries to 30 minutes or less.

Go-to-Market



MEDICAL SUPPLIES

In Peru for example, local doctors report an average of 45 snake bites per month with no rapid access to anti-venom. In situations such as these, road access takes over 6 hours but can be done via drone in under half an hour.



DISASTER RELIEF

In sub-Saharan Africa 85% of roads are inaccessible during the rainy season which cuts off huge swaths of the population. A typical route which can take up to 6 hours can be done within 35 minutes via drone.

Business Timeline

Autonomous drone completed that can navigate waypoints while avoiding obstacles.



Sept 2018

Full scale operations and autonomous drone fleet in select regions effectively fulfilling orders.



Dec 2019

Expand beyond medical delivery to general consumer delivery opening the door to a bunch larger market share.



2021

Jan 2019



Pilot Tests running in Central Asia with an NGO we are partnered with.

2020



Fully autonomous fleet running on the ground in 5 developing regions.



Isaac Perper
MechE w/Robotics



Milo Knowles
CompSci & AeroAstro



Alykhan Bhanji
Mechanical Eng



Loewen Cavill
MechE w/EECS

meet the team.



Sandbox



MIT IDEAS
GLOBAL CHALLENGE

