[BIKE] SWARM

Innovative technology to incentivize and promote the use of sustainable transit while increasing the safety and joy of riders.

A system for bikes and scooters to synchronize light across riders

When riders are alone their lights stay steadily on.

When riders come near each other their lights gently pulsate in synchrony.

Allowing riders to **effortlessly** and **collaboratively** enhance their collective **presence** and **safety** on the road, while creating a visual representation of the rider **community**.

Synchronization occurs via a peer-to-peer broadcast protocol and algorithm, using short-range radio and low-cost technology.

Watch our demo video: [http://swarms.city](http://swarms.city)

[*] for bikes, scooters, skateboards, consumer bike lights and helmets, and any other lightweight personal vehicles or accessories
Cities need sustainable alternative transit

Cities need to provide and promote sustainable transit and reduce reliance on cars, while at the same time efficiently using resources. They also need flexible transit options that can help them resiliently adapt to crises such as the COVID19 pandemic.

Cities need to promote bikes and scooters

Personal micromobility, such as bikes and scooters can be key to helping cities address these problems. Many cities have bike and scooter share programs, and they need to increase their usage as well as use of personal bikes and scooters. They also need to increase the safety of riders.

SOLUTION LANDSCAPE

Subsidized bike-share and scooter-share programs
Bike lanes and bike infrastructure
Bike lights and safety accessories

UNIQUE [BIKE] SWARM SOLUTION

Our technology provides digital infrastructure that adds value to existing solutions.

Provides safety in numbers and enhances riders' collective presence.
Illuminates the rider community.
Incentivizes ridership and creates a fun reason to ride more.
Automatic and effortless for riders with privacy-preserving technology.
We work with cities and private bike share and scooter share providers to embed our low-cost technology into their vehicles.

Revenue sources are vehicle integrations and add-on services such as analytics.

**PRODUCT**

*There is a crowded market of bike and scooter share providers.*

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**Embedded**

*Ideal for bike-share and scooter-share systems*

Designed to be built into frames of bikes and scooters to synchronize across a shared network

**Wearable**

Integrated into personal accessories to synchronize with the swarm network

A front light for your bike, a side light, a light for your helmet

**GROWTH PLAN**

2021 - launch a series of pilots in the U.S.

expand existing pilots

Initial pilots

Q1 2021 Q2 2021 Q3 2021 Q4 2021

2022 and beyond - expand to global scooter market, bike-share programs, more vehicles + consumer accessories

**WORLDWIDE MARKET**

<table>
<thead>
<tr>
<th>Bike-share</th>
<th>Estimated market size</th>
<th>$10 billion by 2025</th>
<th>Estimated vehicles</th>
<th>35.8 million in 2024</th>
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</thead>
<tbody>
<tr>
<td>Scooter-share</td>
<td>Estimated market size</td>
<td>$300 billion by 2025</td>
<td>Estimated vehicles</td>
<td>4.6 million in 2024</td>
</tr>
</tbody>
</table>

*https://www.gminsights.com/industry-analysis/bike-sharing-market
https://www.psmarketresearch.com/market-analysis/scooter-sharing-market
Alex and Thomas met as researchers in the MIT Media Lab’s City Science group. They connected over their shared fascination for the intersection of art and technology as well as their passion to make cities more sustainable and equitable.

Their collaboration started with [bike] swarm as a research project and has extended into a mission to transform how we move on city streets.

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Alex Berke
Alex has degrees in math and computer science from Brown University and is a PhD candidate in the City Science group at the MIT Media Lab. Before the Media Lab she worked as a software engineer.

Thomas Sanchez
Thomas holds a Master in Science from MIT Media Lab and he currently is a researcher at MIT. He has worked in different creative industries as a technologist, creative coder and as a researcher.

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