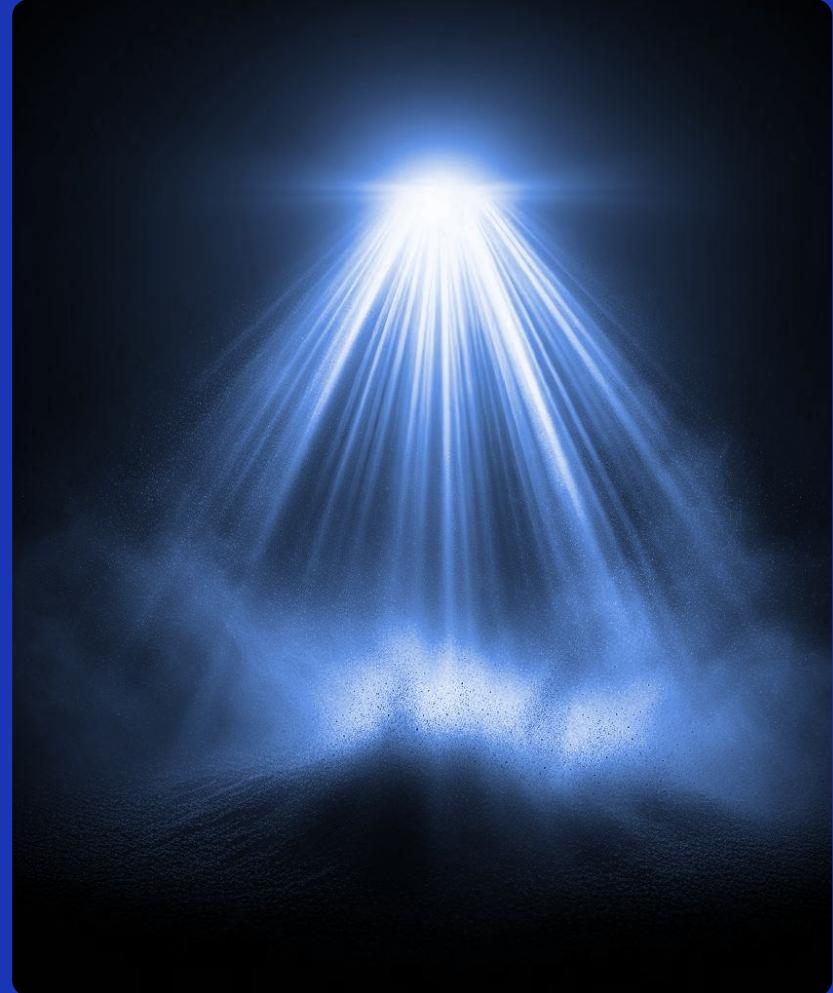


**Chain ReAction**

# Spectral Lighting the Way for Pittsburgh Biking



# Context

How can biking be improved in Pittsburgh?



## Our Problem Statement

**How might we improve both the physical infrastructure for biking in Pittsburgh and the overall traffic flow to enhance safety for cyclists?**

# Consumer Insights

- Understand likes and dislikes about biking in Pittsburgh and in general
- Uncover core values and needs when it comes to cycling and infrastructure



**(1) Pittsburgh Biker**

Q: What was biking in Stockholm like?

A: Protected bike lanes 100% feel way safer, whereas some lanes in America just tempt people to go out of the lane.



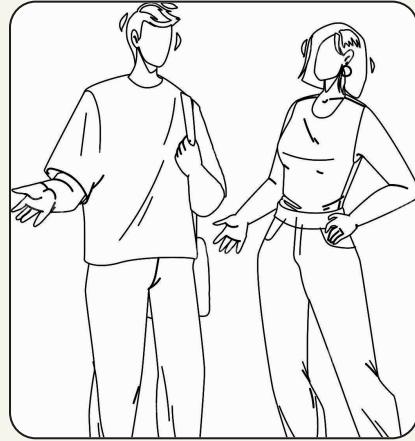
**(2) CMU Bike Consultant**

Q: What comes first, the bikers or the bike lanes?

A: It snowballs back and forth, with advocacy being a big part of passing larger projects.

# Consumer Insights

- cont.



## (3) Pittsburgh Biker

Q: What about divider flags / plastic poles?

A: They are better than nothing, but you see some of them bent to the floor because cars can still run through them.



## (4) CMU Bike Consultant

Q: What big things have you noticed in Pittsburgh?

A: Pittsburgh has a lot of narrow streets.

# Product Requirements



# So what IS the solution?

# Not this.



# Or this.

(at least for a while)

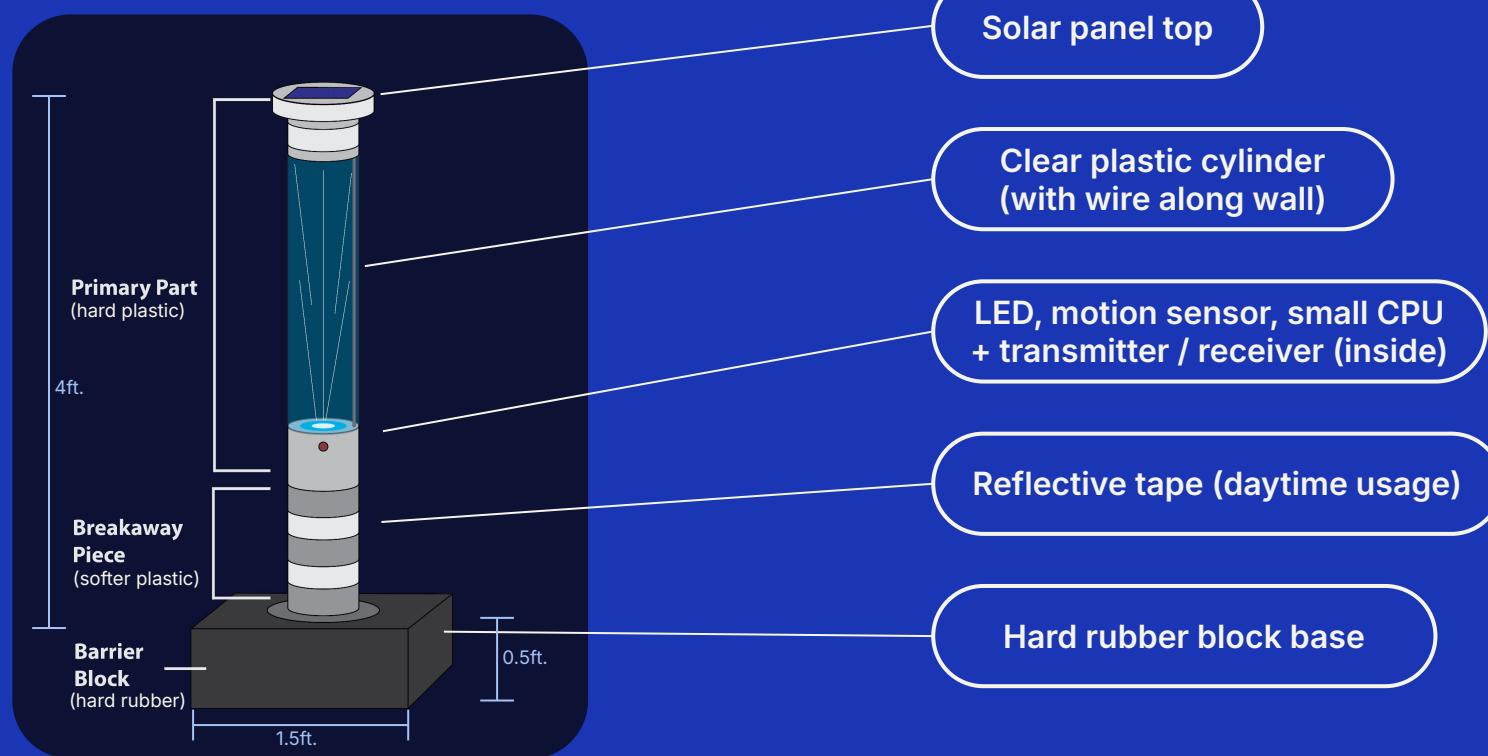




# Spectral Bike Lane Protectors

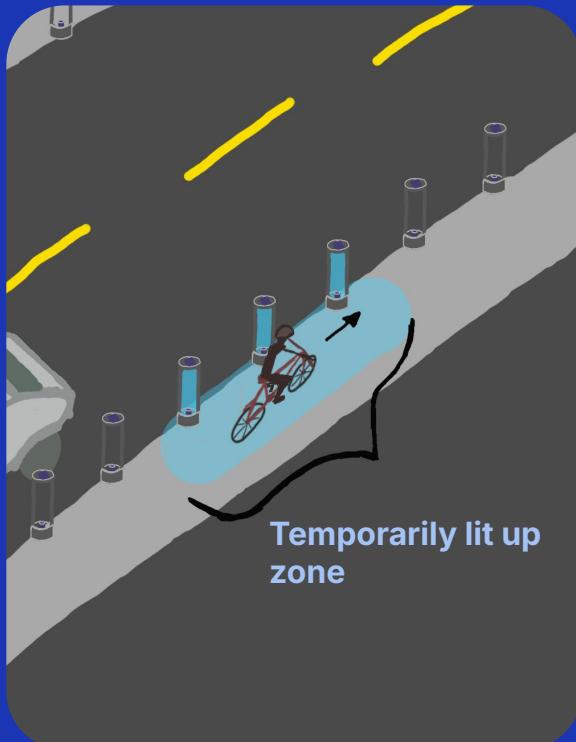
A technology that shines a lot of light on biking and increases safety with a relatively simple, inexpensive, solar-powered technology, empowering people to explore and travel safely.

# Single Unit



Simple.

# Entire System



- Creates temporarily lit up zone continuously for biker
- High visibility for cars
- No burden on biker

Safe.

# A Luminary Companion

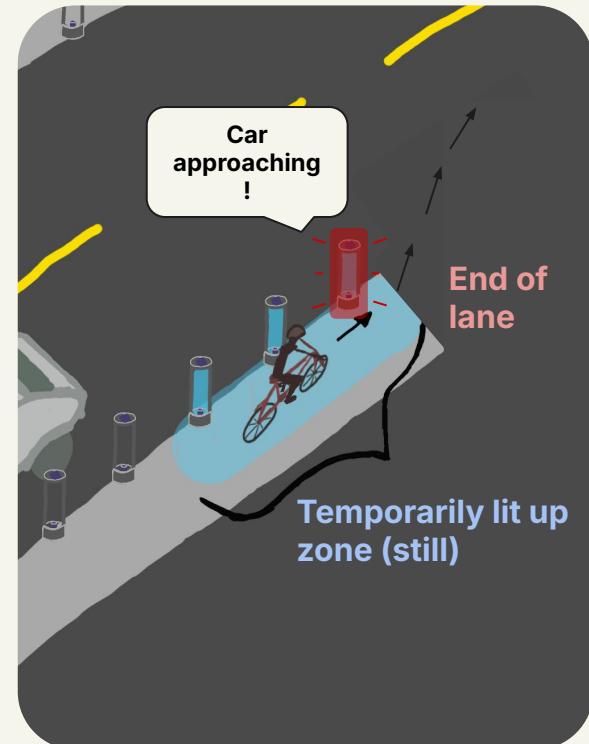


- Light appears to travel from pole to pole alongside biker, providing light and company, encouraging exploration
- Generate curiosity and excitement with initial location launch

Encourages exploration.

# Additional Opportunities

- Flashing pole where biker needs to merge with car lane
- Other possibilities, a light signaling ecosystem can be created



# Cost

- Our solution falls somewhere in between...



Our Solution

\$50 per unit  
(~46 inches)



\$500 per unit  
(49 inches)

# Future Plans



**Develop prototype at  
CMU**

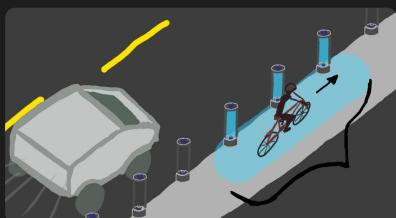
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**Test nearby in Pitt,  
Gather data & insights**

**Expand to other cities**

# Spectral



*Lighting the way for Pittsburgh biking.*

# Thank you.

Emmet McEvilley, Andy Yu, Uptej Singh, Javada Faison

# Questions!