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#

SRT LED

[Schuylkill River Trail
LED Installation]



01

[THE PROBLEM]

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Poorly Lit Pathways...

01

- ❑ Creates unsafe atmosphere for pedestrians, runners, and bicyclists

02

- ❑ Prevents residents from utilizing SRT, thus limiting the social and economic potential of nighttime vitality

03

- ❑ Perpetuates inequities between more affluent areas and low income areas along the SRT



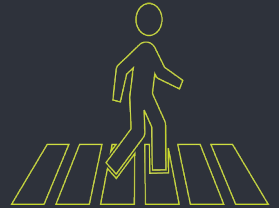
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02

[OUR MOTIVATION]

1 Cultivating Safer, More Inviting Public 2 Spaces 3

4 The Covid-19 pandemic highlighted the need and importance of
5 maintaining and creating safe, free, and accessible public spaces
6 within cities. Providing a more inviting environment along the SRT
7 could increase night light activity & create a sense of community
8 among residents & visitors. Particularly with Philadelphia, cities
9 with large rivers tend to have historically been sites of heavy
10 industrialization. Now that cities are evolving and there is less of a
11 need for those industries, activating these spaces as places that are
12 enjoyable and interactive can be beneficial to residents and city
13 economies.
14



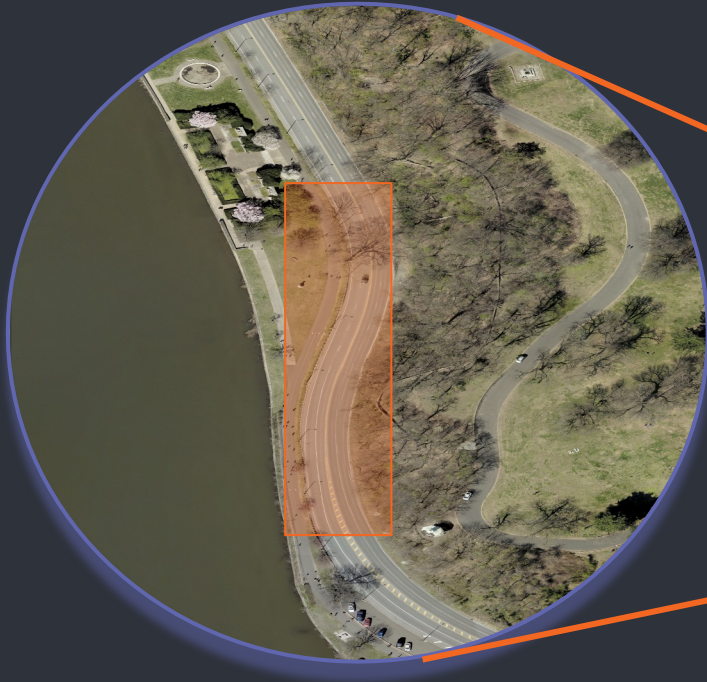
03

[SITE LOCATION]

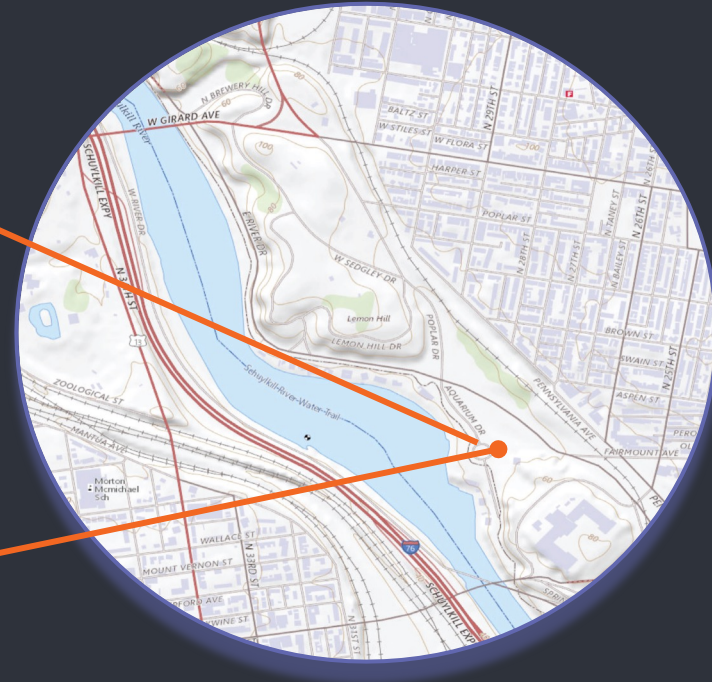
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Location

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LRT SED Site



Philadelphia, PA

04

[THE DIAGRAM]

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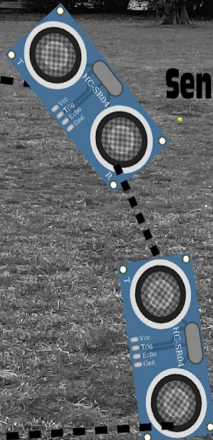
Sense & Response 1

Photoresistors respond if ambient light is low causing LED lights to then activate



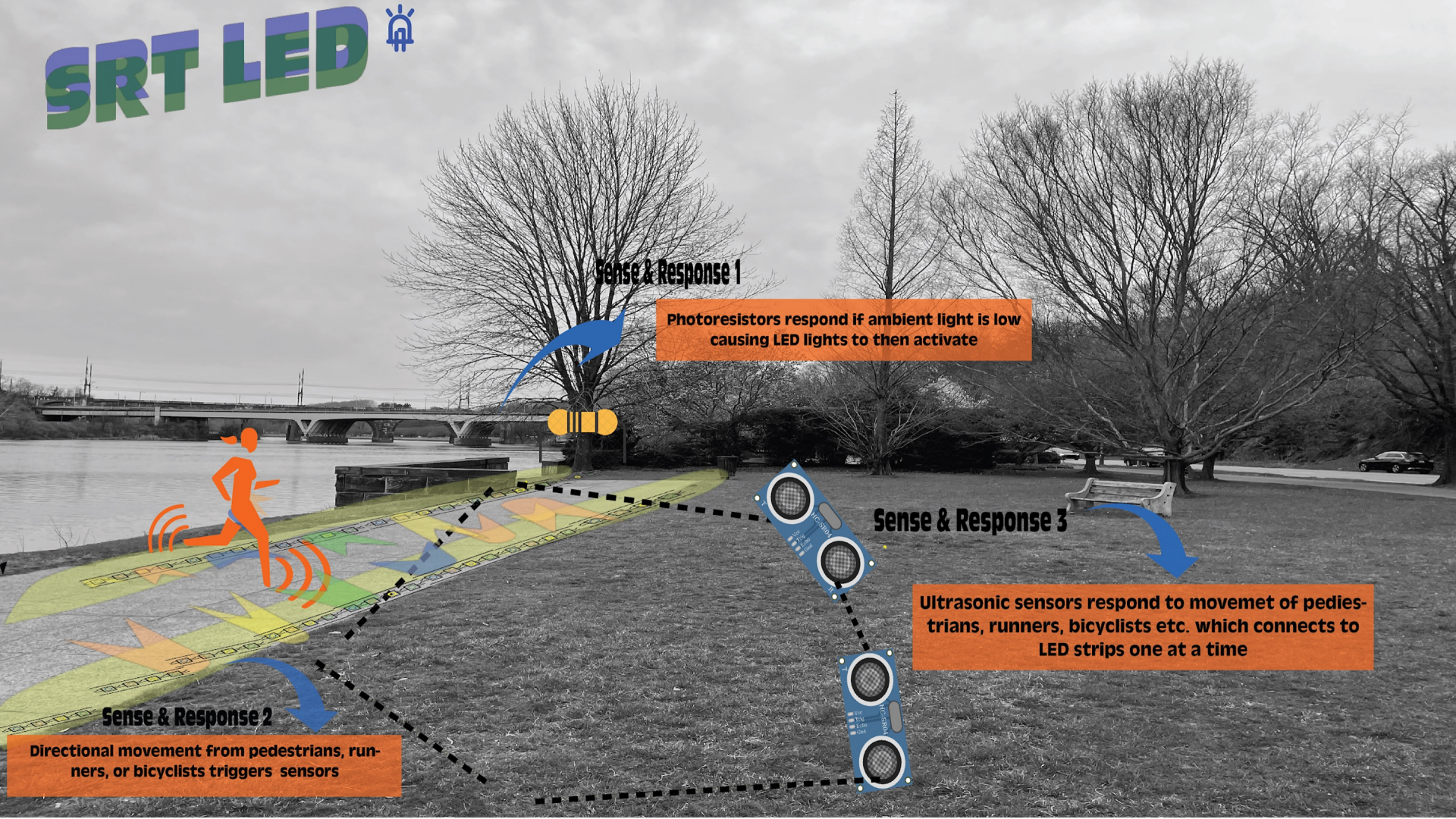
Sense & Response 3

Ultrasonic sensors respond to movement of pedestrians, runners, bicyclists etc. which connects to LED strips one at a time



Sense & Response 2

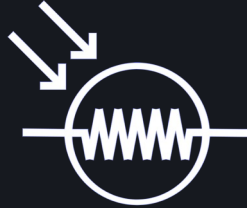
Directional movement from pedestrians, runners, or bicyclists triggers sensors





Photoresistor

senses ambient light



if low, **responds** by allowing power to motion sensors

Ultrasonic Sensor 1

senses movement



activation order indicates direction

Ultrasonic Sensor 2

senses movement



Adjacent LEDs

respond with light when first PIR sensor activates



LEDs along path

Responds with light in movement direction when second ultrasonic sensor activates

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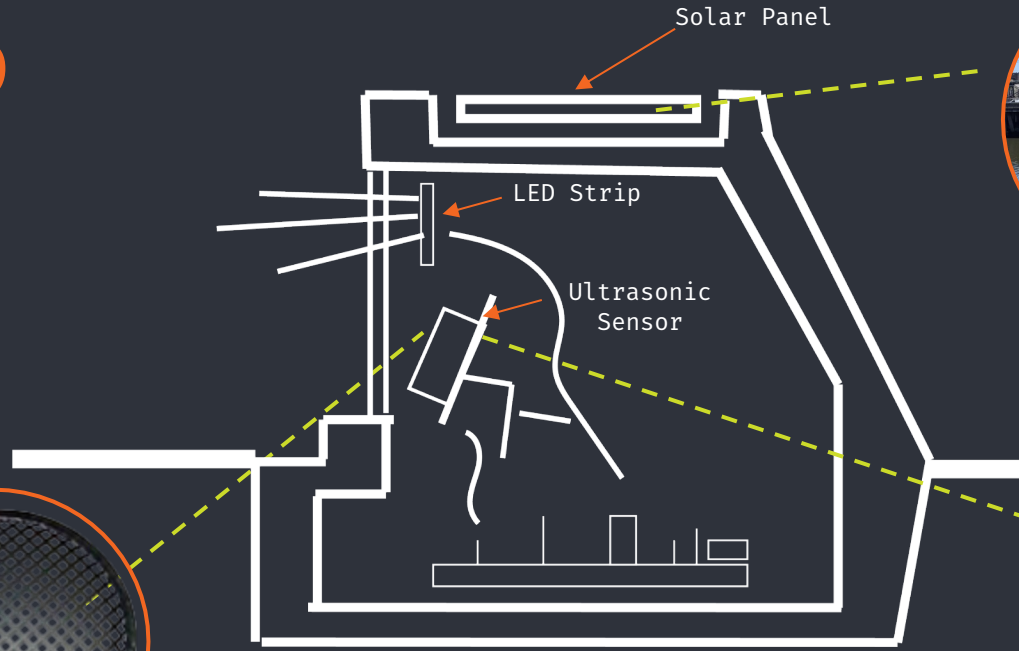
06

[SCALING UP]

How would this work in the real world?

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06

[LET'S SEE HOW
IT WORKS!]

THANKS!

