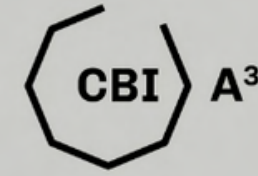




Challenge Based Innovation



# AURIEL

Making walking safe and accessible for all.

By Team:

**FUSION**



# FUSION

📍 New York, NY

**Sachin Archer**

Bachelor of Arts  
Computer Science

**Susanna Lammervo**

Master of Science  
Human-Centered Design

**Aastha Bhadani**

Master of Science  
Information Systems

**PACE**  
UNIVERSITY



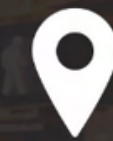


3 GOOD HEALTH  
AND WELL-BEING



## PROBLEM

Traffic accident  
injuries and deaths



New York, NY

**38,824**

people died in the U.S. because  
of traffic accidents (2020)



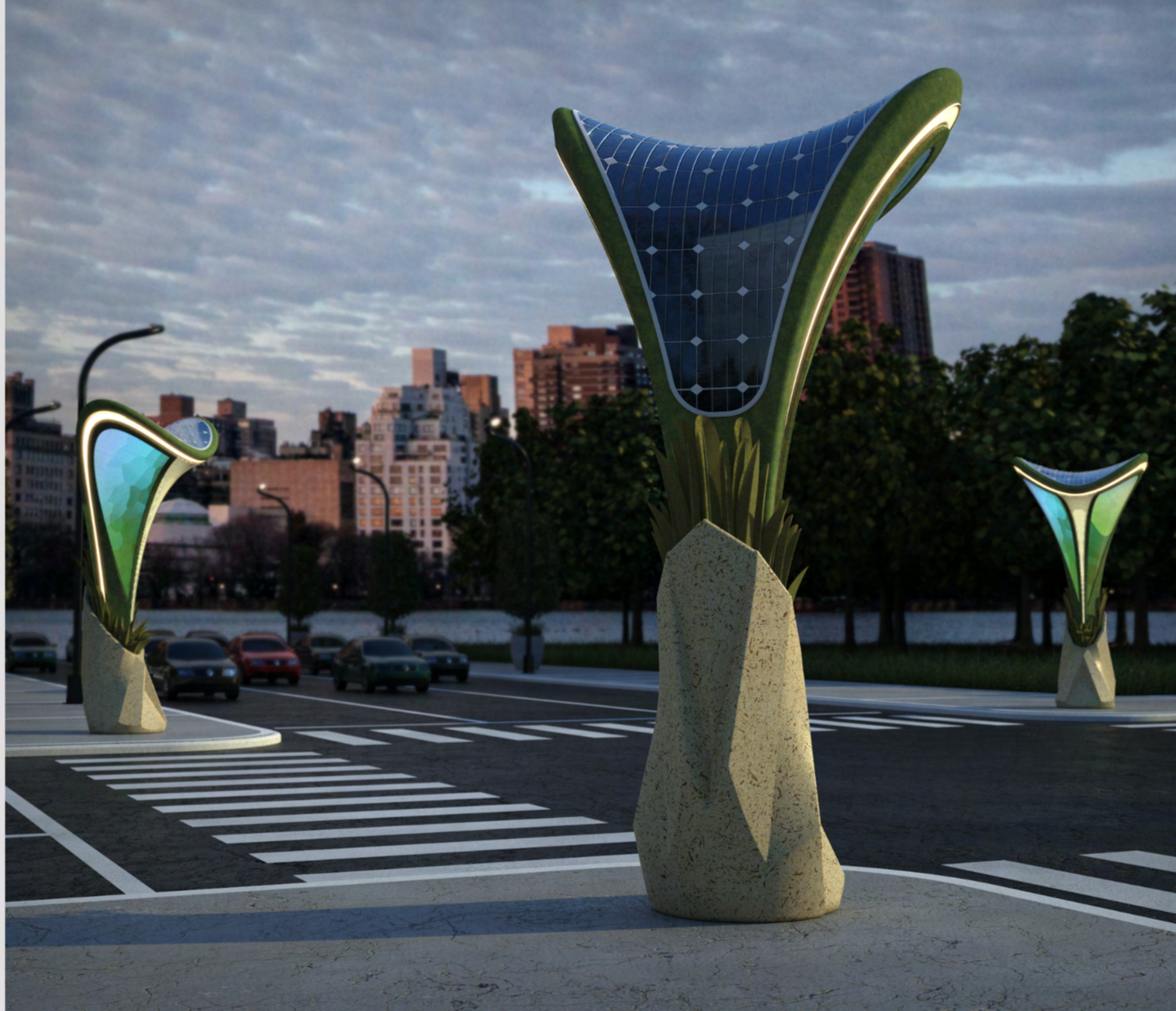
## PROBLEM STATEMENT

How might we improve safety at  
NYC **intersections** for **pedestrians**  
to make better decisions through  
**real-time information?**



# AURIEL

Making walking safe  
and accessible for all.





# AURIEL



A **network system**  
to improve



pedestrian safety  
at **intersections**



through visual and  
audio-based **traffic alerts.**





# AURIEL



Vehicle-to-Network (V2N)



Vehicle-to-Infrastructure (V2I)



Vehicle-to-Pedestrian (V2P)



# HOW IT WORKS?

## Visual Alerts



## Audio Alerts



Shows **traffic alerts** visually through its **screens** and by audio through on-spot **speakers**.

Alerts about:

- Turning vehicles
- High-speed vehicles
- Low-speed vehicles
- Shows if no threats



# TRAFFIC ALERTS

1.

## Low-speed vehicles

A few dots move **slowly**



Visual  
alerts



Audio  
alerts

**Whistling sound**



# TRAFFIC ALERTS

1.

**Low-speed vehicles**

A few dots move **slowly**



**Whistling sound**

2.

**High-speed vehicles**

Several dots move **quickly**



**Rapid repetitive  
beeping**

Visual  
alerts

Audio  
alerts



# TRAFFIC ALERTS

1.

Low-speed vehicles

A few dots move **slowly**



Whistling sound

2.

High-speed vehicles

Several dots move **quickly**



Rapid repetitive  
beeping

3.

Turning vehicle

**Curved line** of dots



Clicking sound

Visual  
alerts

Audio  
alerts



# TRAFFIC ALERTS

1.

**Low-speed vehicles**

A few dots move **slowly**



**Whistling sound**

2.

**High-speed vehicles**

Several dots move **quickly**



**Rapid repetitive beeping**

3.

**Turning vehicle**

**Curved line** of dots



**Clicking sound**

4.

**No threats**

**Straight line** to show a clear path




**NO sound**


Visual alerts


Audio alerts




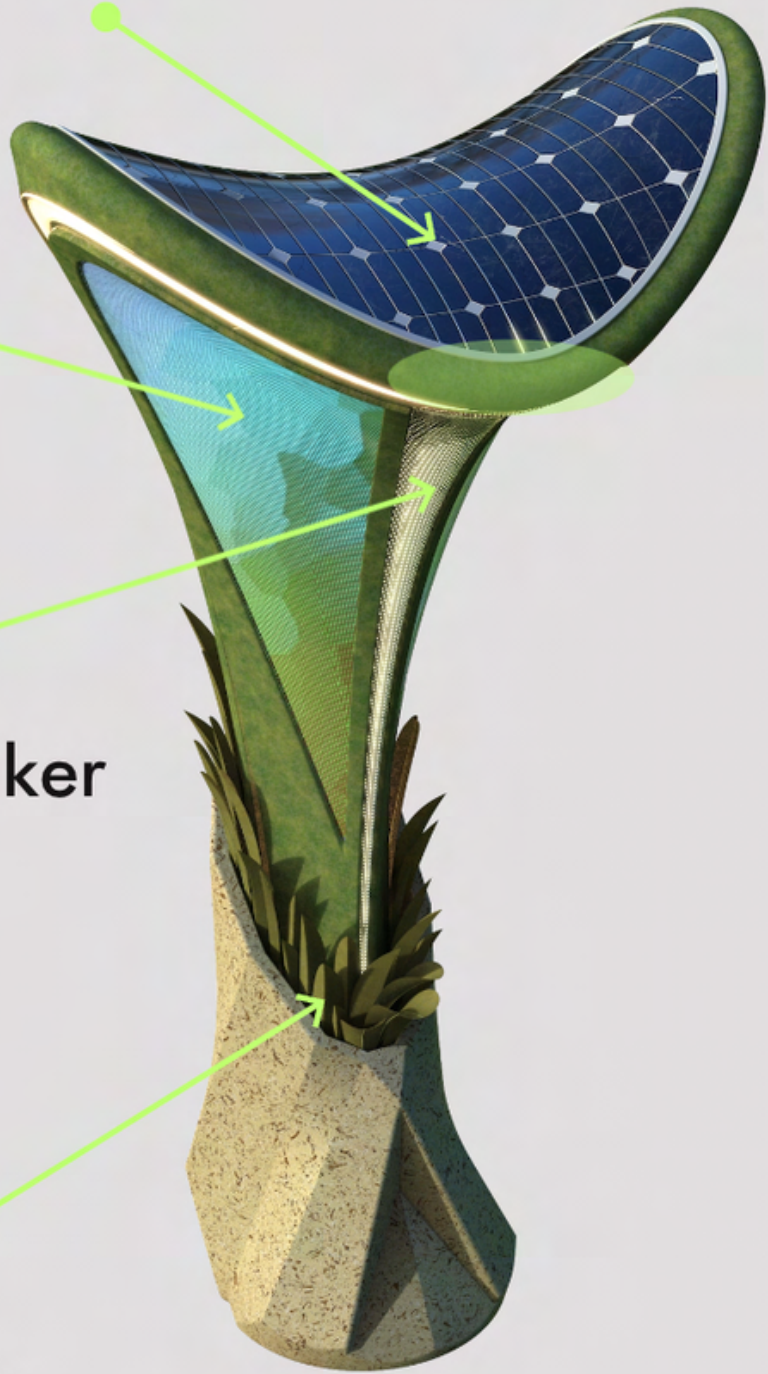
# TECHNOLOGY

 Solar Panels

 LED Screen  
(visual alerts)

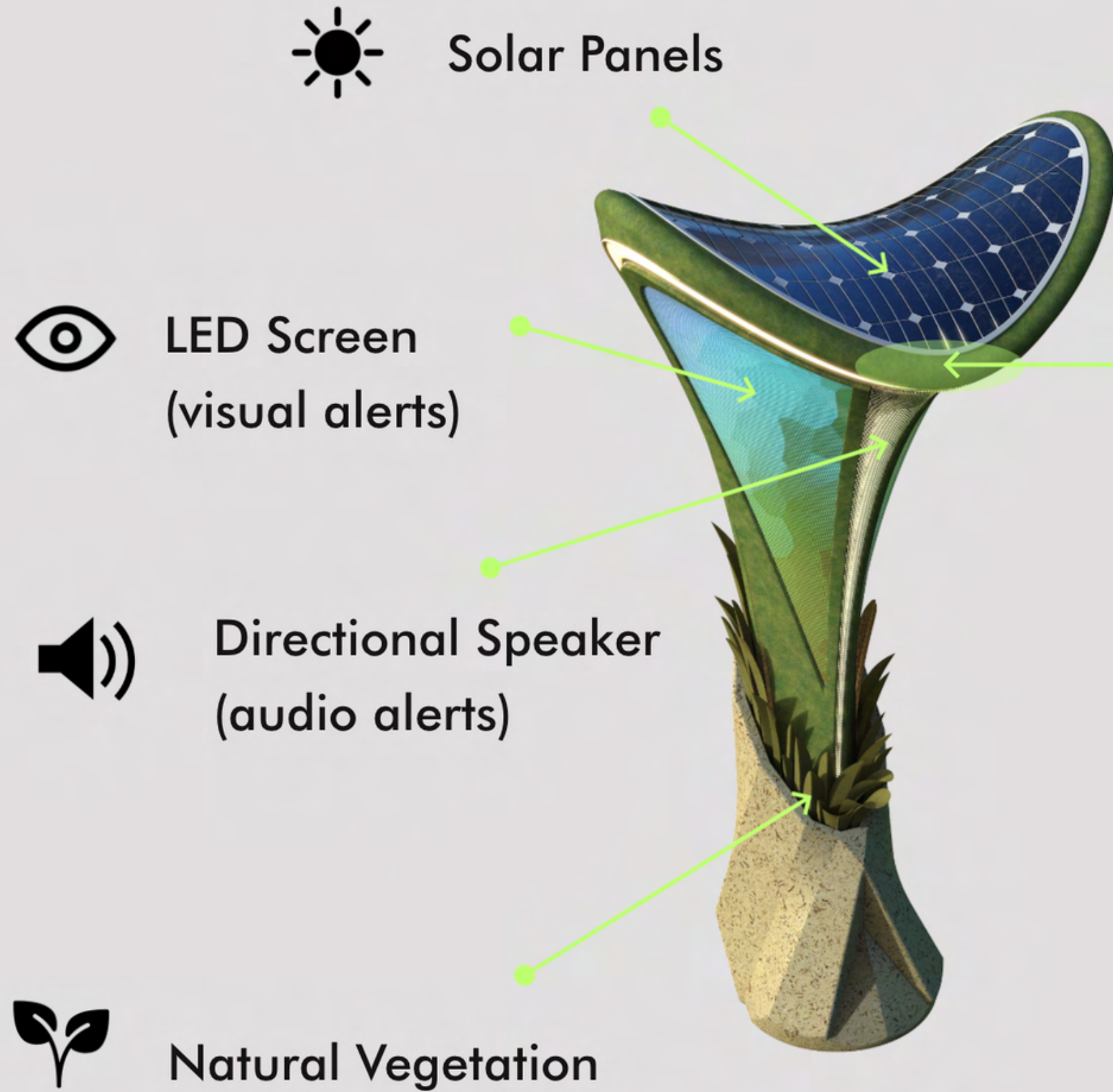
 Directional Speaker  
(audio alerts)

 Natural Vegetation





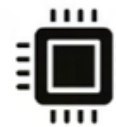
# TECHNOLOGY



**Hyger equipped sensors**  
(speed, direction, velocity etc.)



**H-cube imaging**  
(movement detection)



**Singular Light laser converter**  
(communication transmitter)



**Monitoring system (Auriel's "brains")**

**Remus (central intelligence)**





# Thank You

Making walking safe  
and accessible for all.



**AURIEL**