

# Final presentation: Shadow scenes

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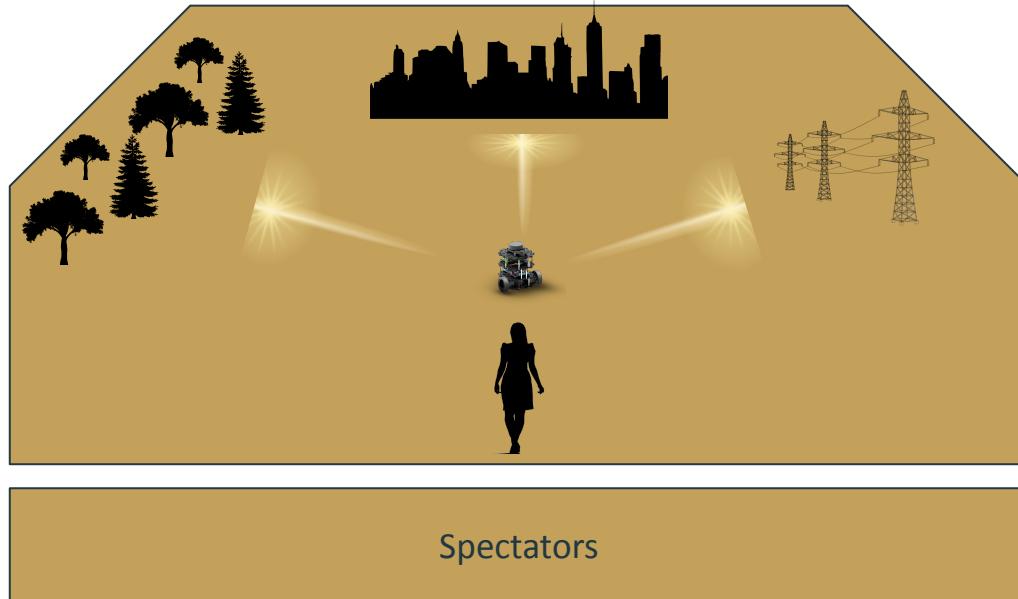


# Concept

Project a scene onto a background—as viewed through a train window—using rotating shadows.

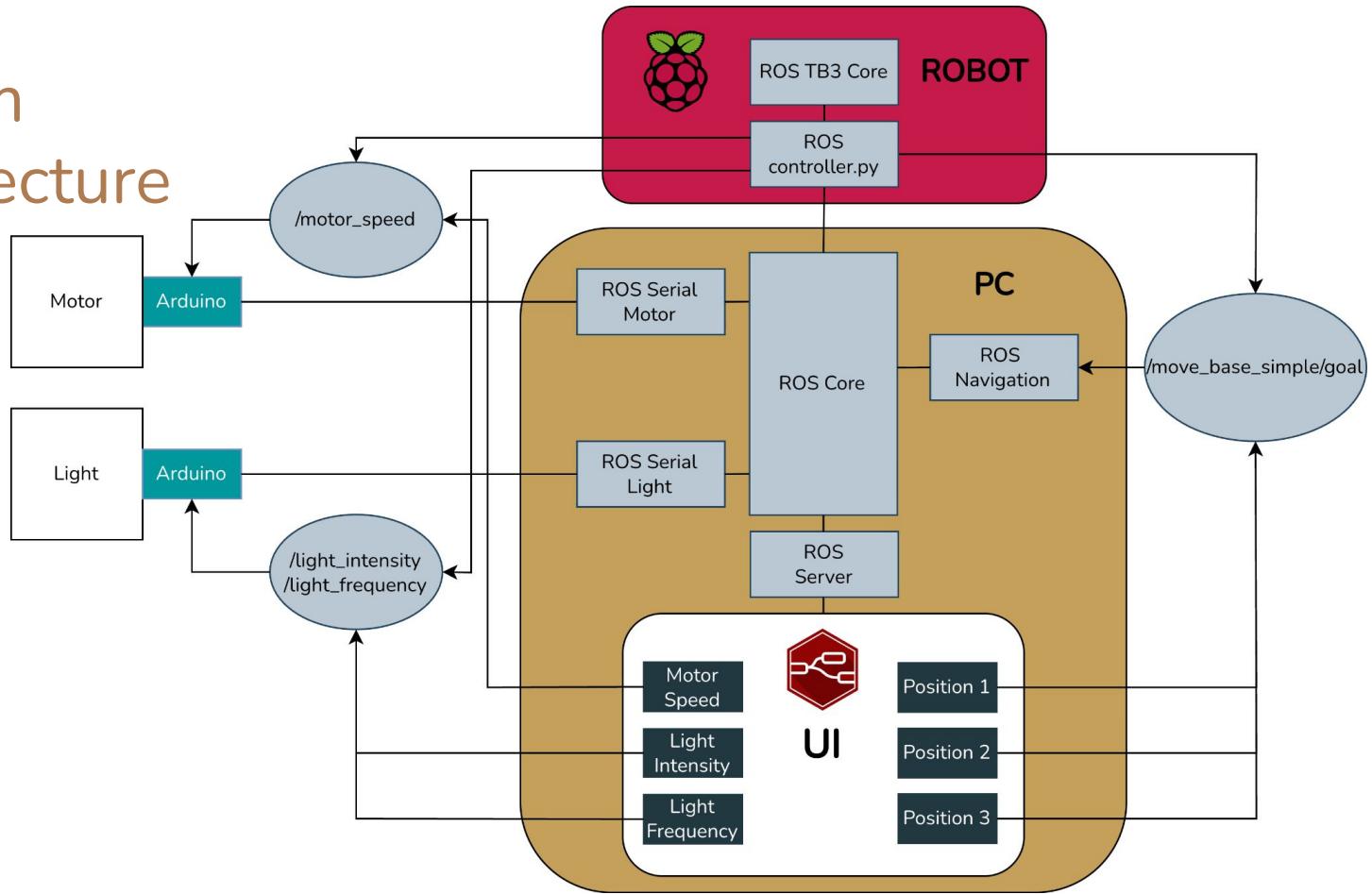


# Stage distribution

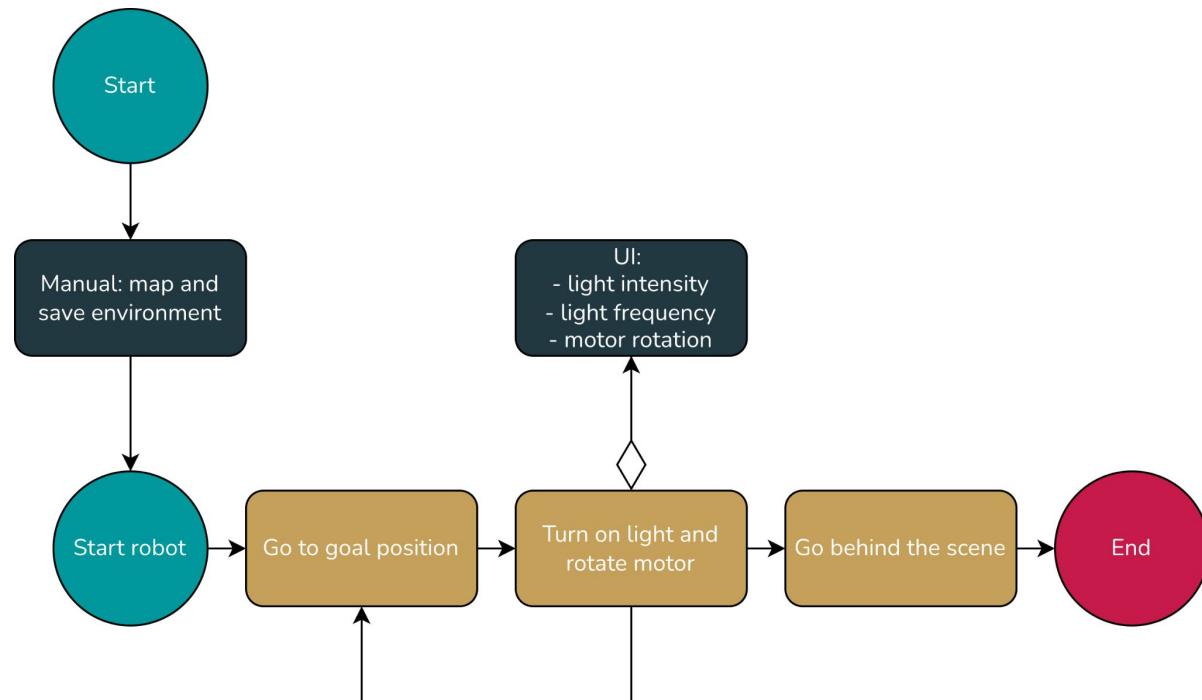


# System Design

# System Architecture



# Robot flow



# Interface

Robot Control

## Movement

POSITION 3

POSITION 2

POSITION 1

## Motor and Light Control

Motor velocity

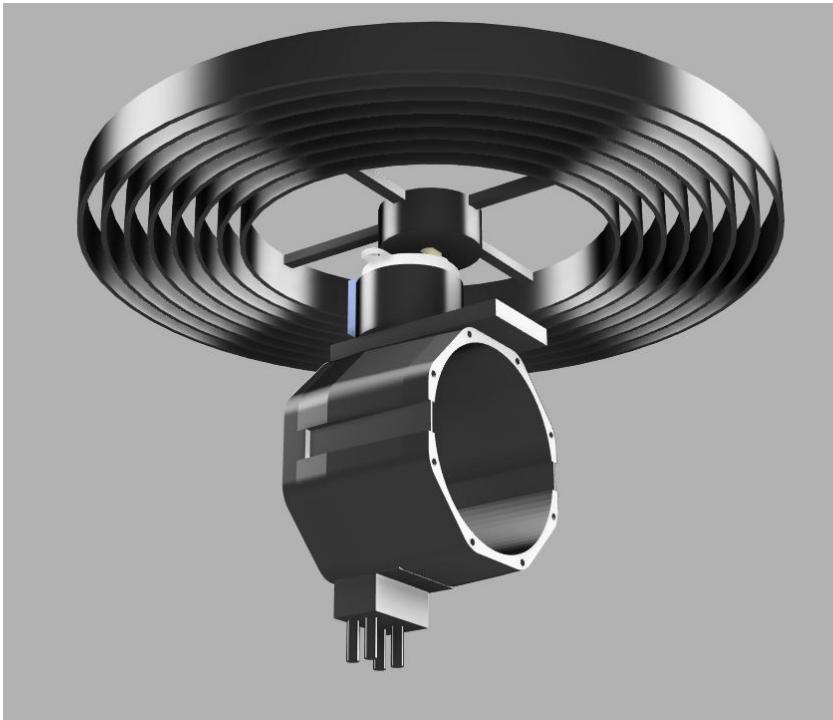
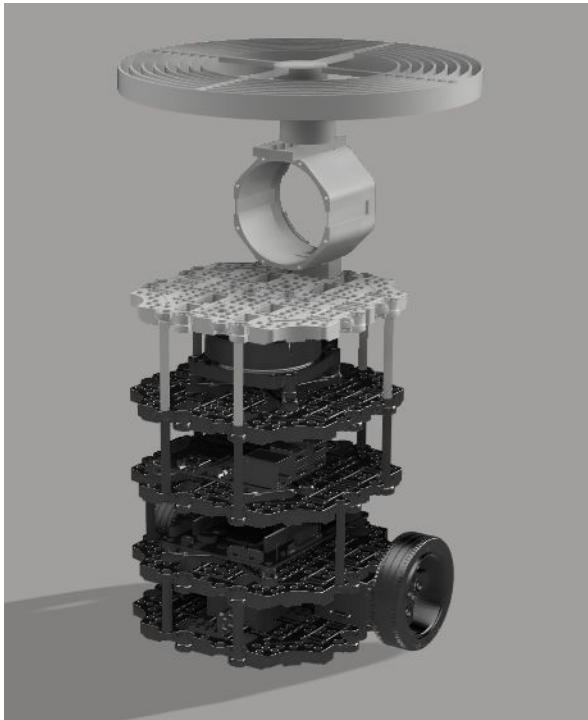
Light intensity

Light frequency

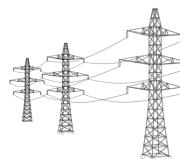
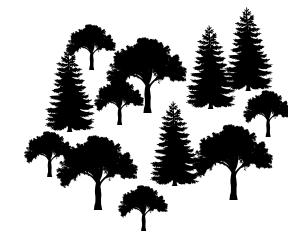
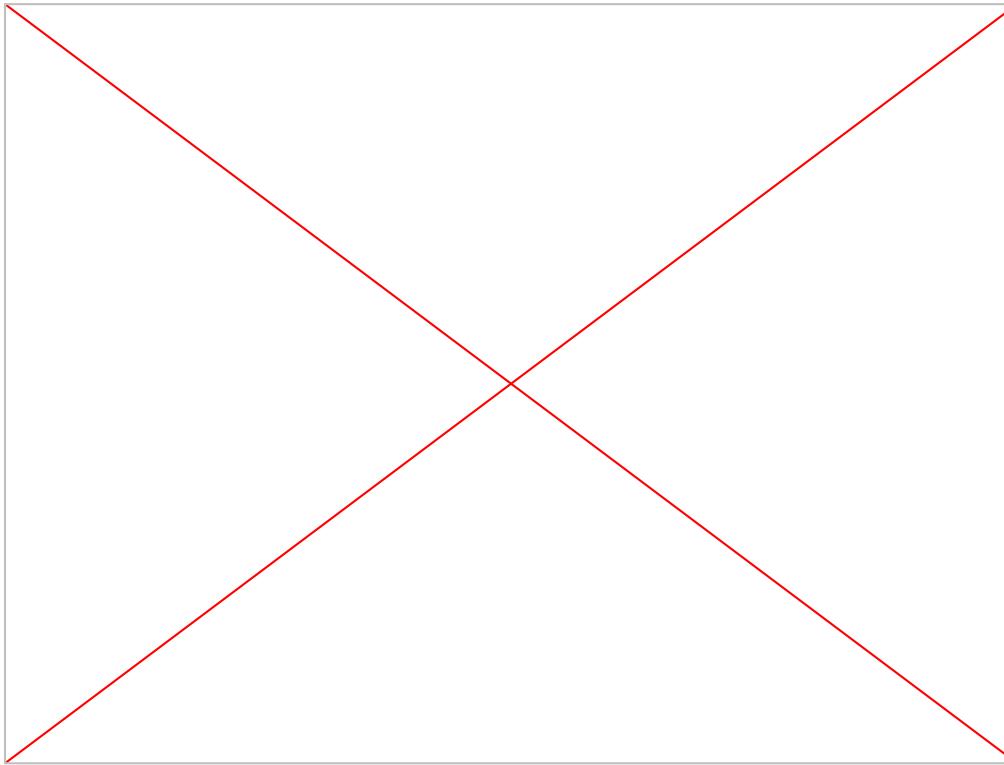


# Hardware designs

# Robot design



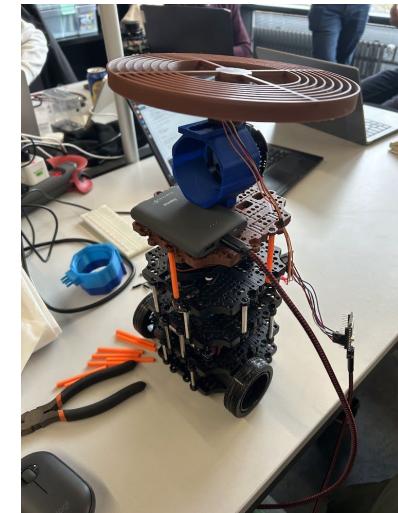
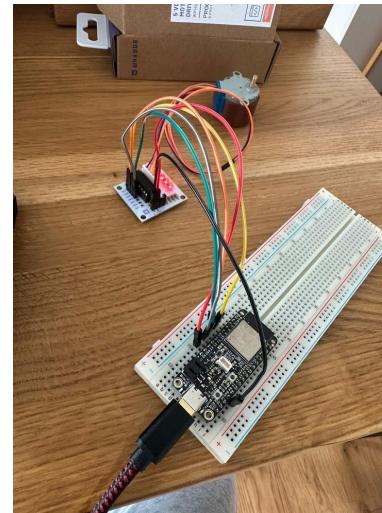
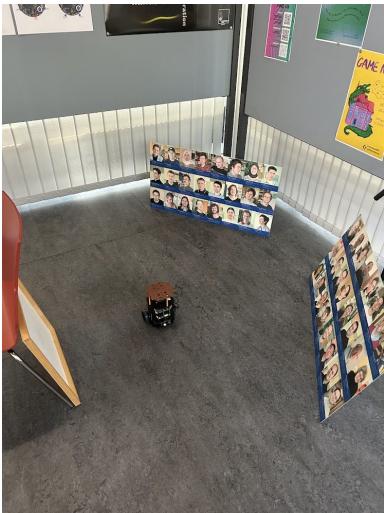
# Landscape outline



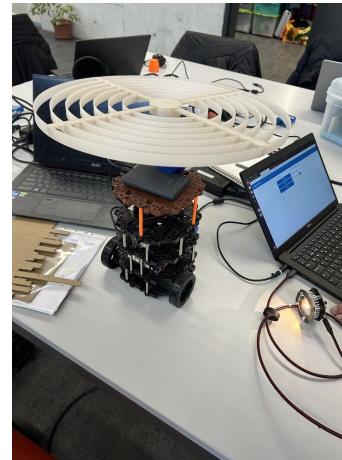
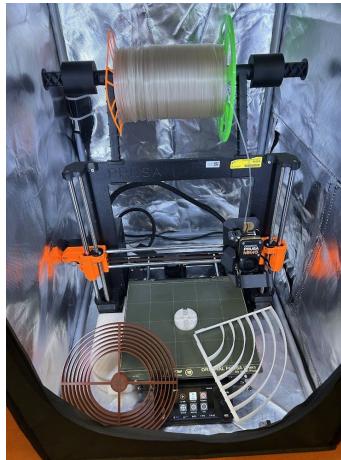


Process: fabrication,  
assembly, and development

# Process

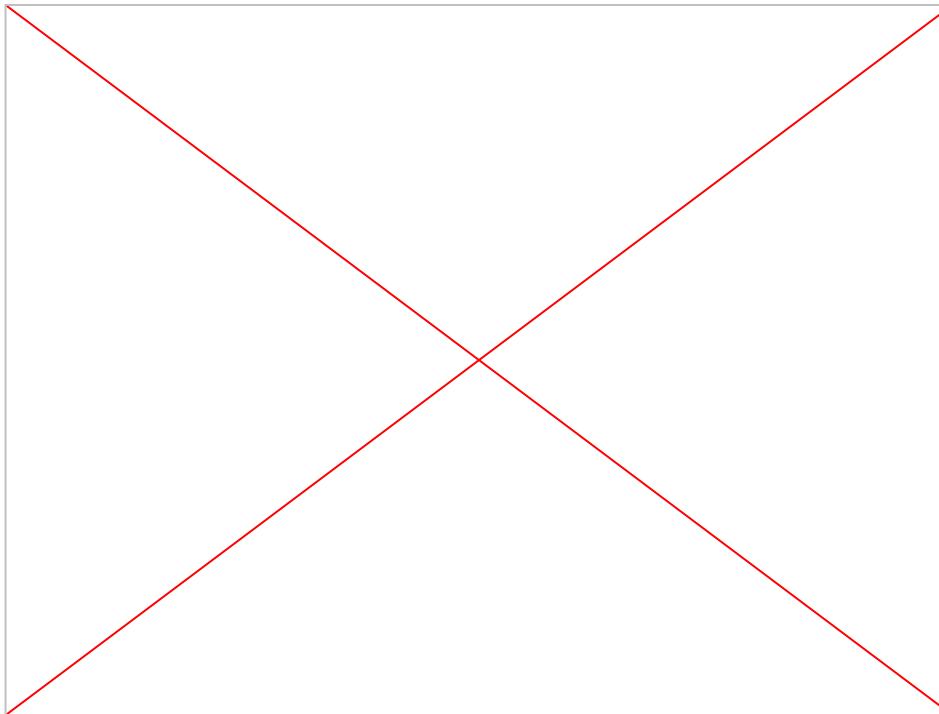


# Process



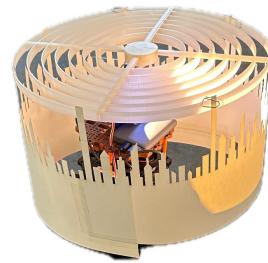
# Simulation

# Demo



# Challenges on the journey

Choosing the right pieces (e.g. motor)



Paper scene blocking the radar

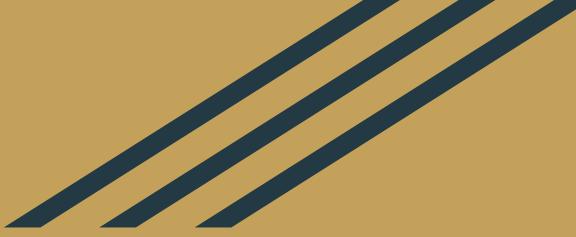
Making the robot collaborate —> “let's just restart everything”

# Future Work

Project different scenes onto different backgrounds

Two concurrent scenes with parallax effect

Make the robot fully autonomous



# Live Demo

# Questions?

