

# Signify

## Goals

Time saving

Scalable

Digitalize process

Interconnectivity

Align with competitors

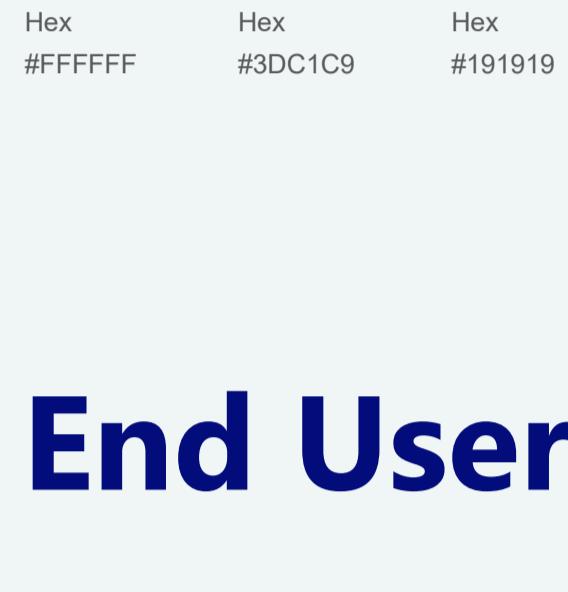
## Challenges

Complexity VS ease-of-use

Monotonous tasks

## Style Guide

(Tentative)



## End User

Engineers

Logical

Tech savvy

## Requirements

Scan

Map

Coordinate system

Data input

Edit / Merge / Rescan

Undo / Redo

## Tools

Adobe XD

MIRO

## Duration

2 month

## Background

Signify is the world leading lighting corporation for professionals. It manufactures electric lights, light fixtures and control systems for consumers, professionals and the IoT.

We were approached by them as they had seen another of our project where the same technology had been applied. They were curious to see if it could be adapted to suit their requirements. A low-fi prototype was ordered to create a visual representation of their vision that could be presented to the board.

**My role** in this project was UX/UI Designer.

## Overview

The main purpose of this application was to allow engineers to scan and map a lighting system of a tunnel in order to maintain it digitally instead of the current manual process.

## Problem

The current working method involved a manual process of having to move each light whenever a change needed to be made or when the whole system was being assembled. A tunnel system can have hundreds of units which made the process very time consuming and reliant on machinery and several engineers.

There was an existing backend system to configure the units, but it was not connected to the units themselves. Each unit would have to be lit up and then cross-checked with the backend.

The process was not intuitive and required new staff to be continuously trained by the existing staff.

## Process

Because of the small scope of the project, I only used MIRO to create presentation material. Overall, I find it to be an excellent tool to gather and share the process with colleagues and stakeholders.

Beginning with EMPATHIZE, I had a meeting with the product owners at Signify to see what aspects of the current process were considered the most time consuming and what limitations they were experiencing. I wanted to get an overview of the current process and find out what features they were expecting from a digital solution.

**The takeaway from the meeting was an extensive features list along with a list of grievances reported by the engineers.** I used this information to define the scope and create a task flow of the revamped digital process. I also added a few suggestions with usability and user control in mind, such as the ability to revert changes and merge different scans to keep the amount of files to a minimum.

The **sitemap** can be viewed [here](#)

I also got a good understanding of the end user, with the client informing me that the engineers are used to advanced interfaces with little support in regards to tutorials, forcing them to learn by doing. They were also very accustomed to technical jargons. Still, I argued for a tutorial of some sort to cover the basic features.

With scope and requirements defined, I began to IDEATE by creating a low-fi prototype.

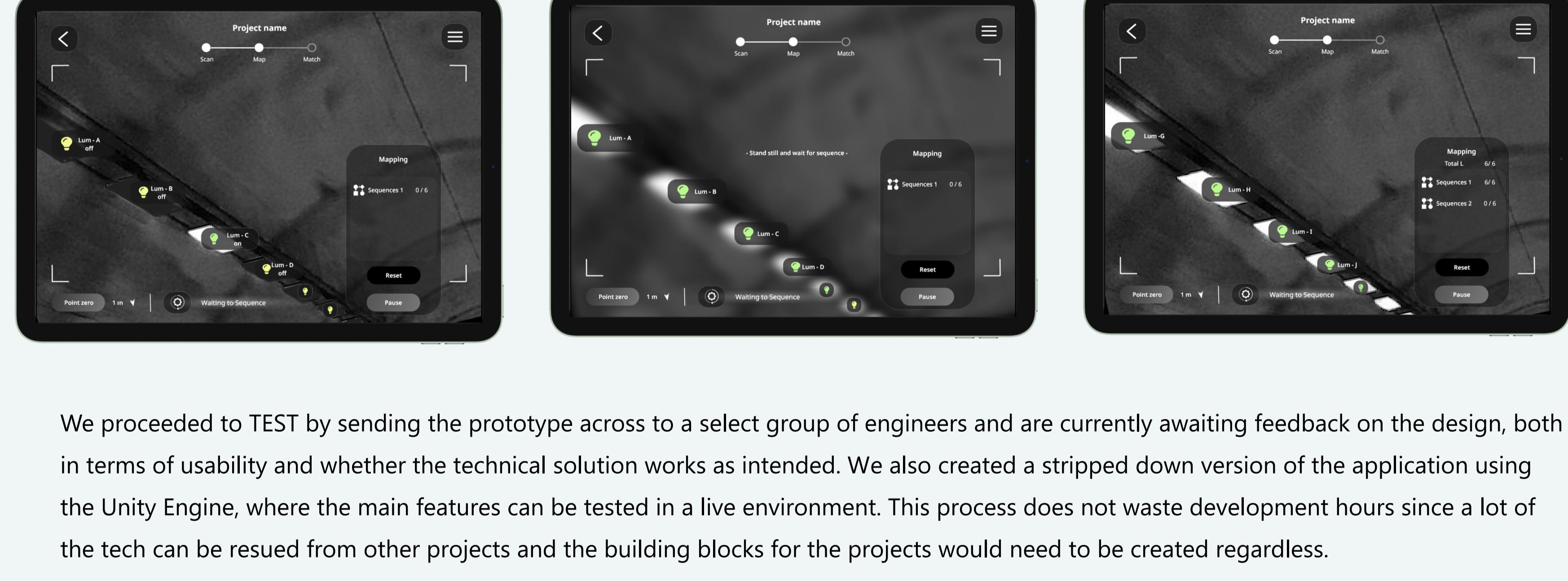
I strive to follow the **human centered design principle** when designing. This meant involving the end user early on and ensuring they remain a part throughout the project lifecycle. My interpretation of the design principle resulted in the following design choices:

- All interaction used while performing the main task takes place within the comfort range of an iPad on landscape mode
- Minimized need for text input for comfort
- Step by step overview for a clear and transparent process
- Principle of common region (items within a boundary are perceived as a group and assumed to share common functionality)
- Law of proximity (objects that are near or proximate to each other, tend to be grouped together)
- Transparent background where possible to retain focus on AR objects

## Tools

Adobe XD

MIRO



We proceeded to TEST by sending the prototype across to a select group of engineers and are currently awaiting feedback on the design, both in terms of usability and whether the technical solution works as intended. We also created a stripped down version of the application using the Unity Engine, where the main features can be tested in a live environment. This process does not waste development hours since a lot of the tech can be reused from other projects and the building blocks for the projects would need to be created regardless.

## Solution

By involving the end users early on, we took the first step towards a user-friendly design that is tailored towards a very specific user group, namely engineers.

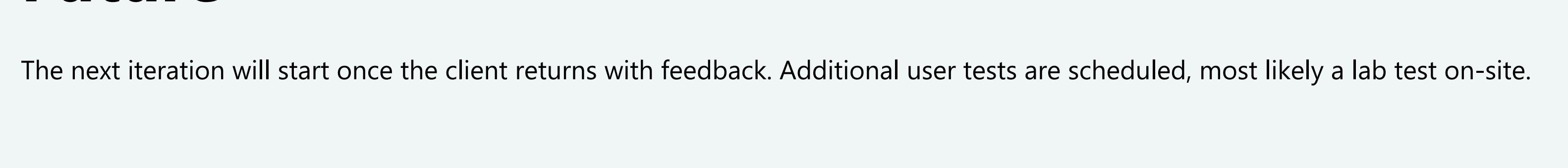
The application first scans the tunnel to detect light sources. Once detected, they are assigned a label and can be configured.

When the whole tunnel is scanned, the process of mapping begins by lighting up the units in the order they are configured in the backend system. The application takes note of the sequence and suggests an alternative configuration. This data is returned to the server.

The issue of having to move the light units around was solved by adding a digital ID tag to each unit that syncs with the application once scanned and mapped. This also ensured interconnectivity with the existing system.

A tutorial was added to ease onboarding and reduce the amount of staff required for training.

To achieve a look and feel suitable for the end-user and the environment it would be used in, I opted for a font commonly used in a programming environment, namely *Consolas*. I also used cool undertones based on the style guide used for the Signify website, since this color spectrum is better visible in a very bright environment, and it also fits aesthetically with the general feel of a tunnel (cool, damp, long).



The next iteration will start once the client returns with feedback. Additional user tests are scheduled, most likely a lab test on-site.