

## **Purpose**

The purpose of this project is to design and develop a light sensor for home automation in the Swedish climate. Also share knowledge between members for a better finished product.

## **Duration and time commitment**

The team has been commissioned to work together for five months. The weekly efforts will average 25% of the team members working hours.

## **Scope**

The scope of the project is limited to developing the product to the stage of being ready for installment and market. The project does not include selling the product and advertising it.

## **Members**

*Ivar Nelson - Head of Testing*

*Ludvig Nilsson - Head of Documentation and Requirements*

*Alexander Filipson - Head of User Interface*

*Filip Hinderup - Project Leader, SCRUM Master*

*Daniil Dykin - Head of Design*

*Torbjörn Fridensköld - Head of Development*

*Michael Unterkalmsteiner - Team Sponsor*

## **Desired End Result**

It is desired that the product is a fully functional unit that fulfills all the required objectives within the next upcoming five months period. A product that can connect wirelessly to the blinds and control their state according to the light intensity outdoors while being able to be operational outdoors in more than 5 years.

## **Supporting Resources**

In order to conclude the project the team will need access to the Ericsson lab at BTH and possibly the BTH makerspace periodically. Furthermore provisions must be made, in cooperation with Dr Unterkalmsteiner, so that the team can acquire hardware required to design and develop the system.

## **Reporting Plan**

All project information will be stored in a GitHub repository, including documentation from meetings with the customer, HoD, internally within the team, and any additional meetings that may occur. Every sprint will conclude with a brief overview of the project's progress during the previous sprint, and a brief description of objectives for the upcoming sprint. The end of the project will be documented with a final report. Documentation during the course of the project will be maintained and controlled primarily by the Head of Documentation.

## **Deliverables**

The Group will deliver a light sensor that will be climate resistant. It will have an independent electricity production and have a lifespan of five years etcetera. The light sensors desired properties is to send updates every minute, is integrable with “Home Assistant” and use the standard communication protocol for internet of things devices.

## **Links**

The project has a direct link to other existing light sensors on the market, technologies will with large certainty overlap and be used as a source of inspiration to our product, there are outdoor and indoor light sensors but none of them have the complete feature set that we are working to implement. No specific model has been looked at yet. Also our project will use Home Assistant<sup>1</sup> for smart home integration.

---

<sup>1</sup> <https://www.home-assistant.io/>