

Outdoor Blimp



Project Summary

As part of the European semester project, our goal is to develop an innovative system to monitor and control livestock in the vast Australian farms known as stations. To achieve this, we use a specially equipped blimp controlled by the farmers. The blimp is equipped with a camera and location sensors. It hovers over the herds of livestock, providing a panoramic and real-time view of their condition and behavior thanks to app develop to control all the functions.

With the onboard camera, farmers can actively monitor the animals, detect health issues, injuries, or abnormal behaviors. The location data provided by the blimp allows farmers to precisely track the animals' positions and quickly locate them when needed. This system enables station operators to optimize their farming practices, improve the health and well-being of the animals, and ensure more efficient herd management.

To achieve this project, we need to follow and respect some requirements.

Legal requirements are:

1. Comply with the following EU Directives:
 1. Electromagnetic Compatibility Directive ([EMCD](#));
 2. Low Voltage Directive ([LVD](#));
 3. Machinery Directive ([MD](#));
 4. Radio Equipment Directive ([RED](#));
 5. Restriction of Hazardous Substances in Electrical and Electronic Equipment Directive

(ROHS);

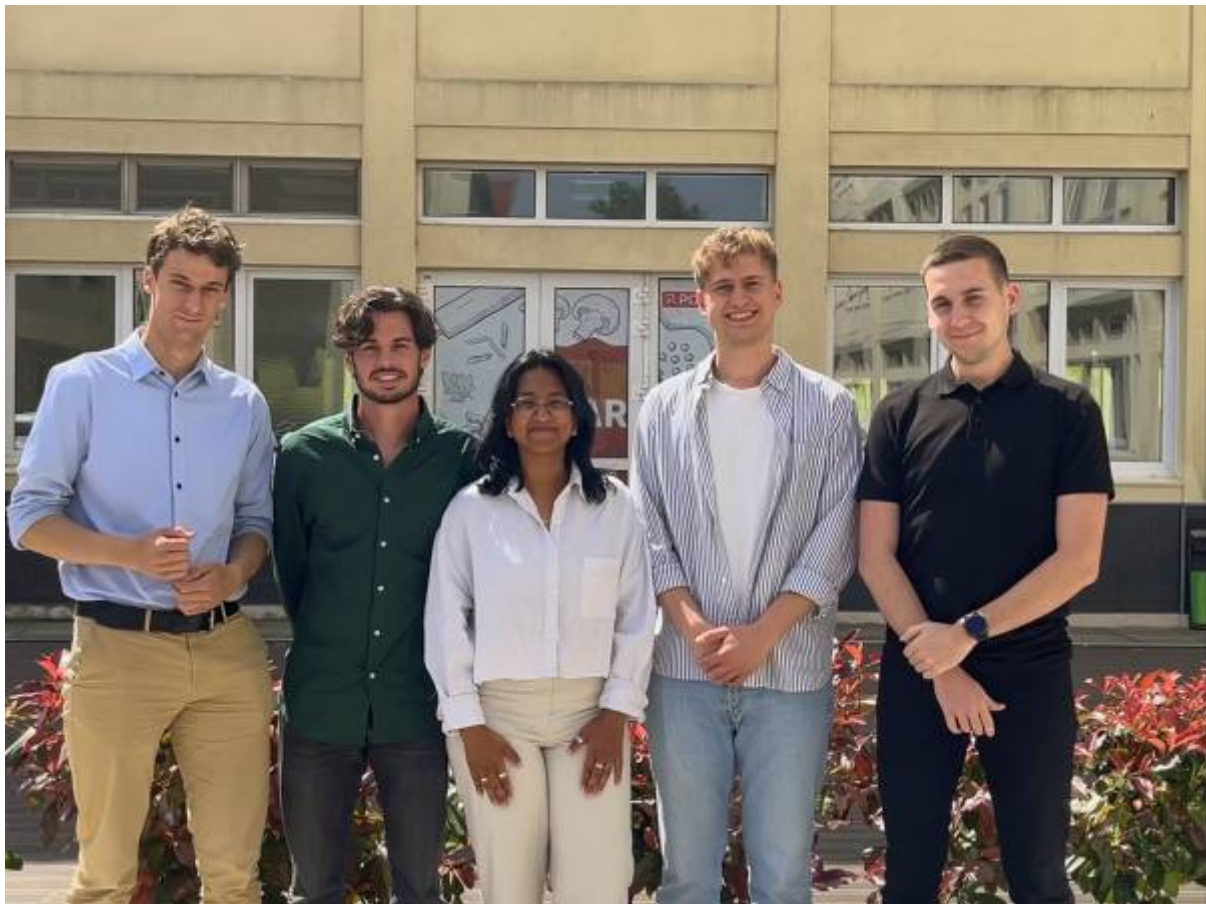
2. Mandatory adoption and use of the International System of Units ([The NIST International Guide for the use of the International System of Units](#))
3. Use open source software and technologies.

Budget requirement: Maximum of 100 €

Project requirements are:

1. User-friendliness
2. Durability and resistance to environmental conditions
3. Precise location system
4. High-quality camera
5. Cost-effective
6. Data security

Participants



Institution: Instituto Superior de Engenharia do Porto

Team N.5:

Students:

- Sonia Gupta
- Michał Piotr Mamos
- Krijn Blommestijn

- [Kylia Dallongeville](#)
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Utilities

- [DokuWiki Syntax](#)
- [Videos on how to use DokuWiki](#)

Acknowledgements

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