

---

The overarching goal of the project is to create a platform for a stage spotlight with the behavior expected by such a system.

As the mechanical platform is delivered to the project, the main challenges arise from the theoretical system and control design and software engineering required to materialize the platform.

These challenges include:

- What is the performance requirements for a spotlight?
- What ways are there to control a system of this type?
- How can the chosen control engineering approach be implemented on a microcontroller?
- How can one design a system allowing hardware control of the given platform?

In order to provide a satisfactory answer to these questions, the design of the FPGA modules and microcontroller software alongside with the considerations revolving around control engineering will be covered in the following report.