

Open Science Hardware Setup for investigating the Stability of Organic Solar Cells - Interim Report

Samuel Mendis

Department of Engineering Science, University of Oxford

Department of Physics, University of Oxford

7th January 2021

Chapter 1

Mechanical Design

The first stage of the design process was to outline a specification for the testing container. These specifications were drawn from the project brief, the literature review and discussion with my supervisor Professor Moritz Riede. The specification of the design is outlined below:

1. The container must be able to accommodate a 30 mm x 30 mm substrate provided by AFMD research group.
2. The container must be leakproof to outside air.
3. The container must allow electrical connections from outside to connect to the substrate for measurements.
4. The container must enable the substrate to be heated to a given temperature*.
5. The container must have a window allowing light to be shone into the box.
6. The container must contain a gas inlet.
7. The container should fit into the small glovebox inlet with diameter 150 mm.