**Project Title**

# Primary contact for the team

Weiming Che ([wc289@cam.ac.uk](mailto:wc289@cam.ac.uk)), Control Group, Department of Engineering.

**Team**Please include the names and email addresses of all team members, include their department/organisation and briefly (1-2 sentences) what they will contribute to the project.

Zhengao Di ([zd250@cam.ac.uk](mailto:zd250@cam.ac.uk)), Department of Plant Sciences.

Weiming Che ([wc289@cam.ac.uk](mailto:wc289@cam.ac.uk)), Control Group, Department of Engineering. He will be in charge of electrical circuit integration as well as implementing control algorithms to modulate plant growth environment based on sensor readings.

**Summary [zd?]**

Summarise in one paragraph (~150 words) what you aim to do in the project.

# Proposal:

# The problem [zd]

The problem you are addressing…

**Biological systems [zd]**

The biological systems you are using…

**Hardware design goals**

The design goals for the hardware…

**Project implementation**

How you plan to implement the project…

# Outcomes and benefits [zd] The proposed outcomes and benefits…

**Sponsor for the work**   
Prof. Julian Hibberd

Head of Group;

Department of Plant Sciences, University of Cambridge

jmh65@cam.ac.uk

**List the components and budget that you envisage you will need to complete the project:** (see <https://biomaker.squarespace.com/ordering-information/> for more details and supplier list) The more detailed your bill of materials, the higher your proposal will be ranked so please include everything you think you will need to complete the project. There will be an opportunity to make alterations at a later date.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Item** | **Supplier** | **Catalogue #** | **Quantity** | **Price (each)** | **Total Price** |
| Camera |  |  | 1 |  |  |
| 3d printer |  |  | 1 |  |  |
| Lamp |  |  |  |  |  |
| Fan |  |  |  |  |  |
| Xxx module (for temperature control) |  |  |  |  |  |
| Material for 3d printer |  |  |  |  |  |
| Wires |  |  |  |  |  |
| Raspberry Pi |  |  |  |  |  |
| Breadboard |  |  |  |  |  |
| Thermosensor |  |  | 1 |  |  |
|  |  |  |  |  |  |

**The full application should be no more than 3 pages, excluding any figures, photos and diagrams which should be inserted at the end of the document and referenced in the text. There are no word limits on any section apart from the 150-word summary.**

**Please submit your complete application to** [**synbio@hermes.cam.ac.uk**](mailto:synbio@hermes.cam.ac.uk) **by 6th December 2020.**