

# CUSBS Project Overview 2

A scanning automated microscope for multiple samples and time-lapse studies to demonstrate the use of lower cost DIY alternatives for instruments in research labs.

## Budget: £800

| QTY | Item                        | Source                  | Cost     | Total           |
|-----|-----------------------------|-------------------------|----------|-----------------|
| 2   | Makerbeam Kit               |                         | £ 80.00  | £ 160.00        |
| 24  | Makerbeams                  | Technobots              | £ 4.00   | £ 96.00         |
| 1   | Brackets, CNC parts         | Motion Control Products | £ 100.00 | £ 100.00        |
| 1   | 2.85mm PLA Filament, 1kg    | RS Components           | £ 23.60  | £ 23.60         |
| 2   | Raspberry Pi Camera Board   | RS Components           | £ 7.99   | £ 15.98         |
| 1   | Raspberry Pi 2 B            | RS Components           | £ 25.65  | £ 25.65         |
| 6   | Stepper motor               | -                       | £ 20.00  | £ 120.00        |
| 1   | Screws/Bearings/LEDs/Lenses | -                       | £ 200.00 | £ 200.00        |
|     |                             |                         |          | <b>£ 741.23</b> |

NB. The budget excludes the cost of a 3D printer at approximately £1500

## Rough Project Timeline: 24 Weeks, Beginning January 14<sup>th</sup>

1-2 Organisational Meetings

2-4 Teaching and explanations

3-7 Prototype translation stage for software development

5-8 Lens holder prototype

14 Software Prototype

14 Second Prototype

16-18 improved version, fully working

18-24 Student Exams, Final testing/modification/tidying up