

# CUSBS Project Overview 1

A small, automated, single-axis, digital, inverted microscope for quick analysis of slides

## Purpose

To be used as a cheap sensor for water/blood testing in developing countries and quick desktop analysis tool in labs.

## Budget: £400

QTY	Item	Source	Cost	Total
2	2.85mm PLA Filament, 1kg	RS Components	£ 23.60	£ 47.20
5	Raspberry Pi Camera Board	RS Components	£ 7.99	£ 39.95
2	Raspberry Pi 2 B	RS Components	£ 25.65	£ 51.30
3	Stepper motor	-	£ 20.00	£ 60.00
1	Screws/Bearings/LEDs/Lenses	-	£ 200.00	£ 200.00
				£ 398.45

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 of z-axis for software development

10 First Prototype

12 Software Prototype

16-18 improved version, fully working

16-24 Student Exams, Final testing/modification/tidying up