

## BTEC FIRST DIPLOMA

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# Raspberry Pi Robo Rally: Project Brief

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## 1 Proponents

Scott Morgan		Cardiff University & Bridgend College
Claire George		Bridgend College

## 2 Title

Raspberry Pi Robo Rally

## 3 Proposal Statement

To design, implement and test an application capable of controlling a Raspberry Pi CamJam Robot from a mobile smartphone.

## 4 Objectives

- Discuss ways of controlling the Pi remotely and decide on primary course of action.
- Design and wireframe an application.
- Implement application in code, using software and examples provided by the instructor.
- Export application to an emulator or real device.
- Iteratively test design.
- Gather user feedback and update as necessary.

## 5 Potential Audience

The app must be user-friendly and accessible to a wide range of ages and technological abilities, from primary school children through to adults.

## 6 Recommended Hardware & Software

- Raspberry Pi 3 or Zero W
- CamJam Edukit 3
- Python Notebook via CoCalc (or via Idle 3 on a Raspberry Pi)

## 7 Required Timeframe

To be completed by the Technology Skills Workshops 15-19 January 2018.

## 8 Required Documentation

- Evidence of design and iterative process arriving at final product.
- Evidence of testing procedure.
- Evidence of feedback from project managers. This could be in the form of questionnaires or live feedback after a presentation to an audience.
- Evidence of updates must be provided.

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- Justification of which feedback items were implemented in the final design. Evidence of justification can be provided in a report format or a presentation to an audience.

## 9 Things to Consider

### 1. Keep it simple!

- Your design does not have to be complicated.
- You would be better off with a simple design which works well, than a complicated one that no one can use.

2. Keep a record of **EVERYTHING** you do. It'll all help towards providing evidence for your assessment.

3. Keep in touch - if you feel like you're falling behind, let me know and we'll sort it out!

4. See 1.

- *Simple can be harder than complex; you have to work hard to get your thinking clean to make it simple. (Steve Jobs)*