Cambridge Technicals IT

Raspberry Pi Robo Rally: Project Brief

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1 Proponents

Scott Morgan | Cardiff University
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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 Idle 3
- MIT App Inventor

7 Required Timeframe

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

8 Required Documentation

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

9 Things to Consider

1. **Keep it simple!**
    - Your app does not have to be complicated.
    - You would be better off with a simple app which works well, than a complicated app 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)*