

Assignment 1

by Callum Cross

FILE	6071_CALLUM_CROSS_ASSIGNMENT_1_137856_204865284.PPTX	WORD COUNT	1750
TIME SUBMITTED	06-DEC-2018 02:38PM (UTC+0000)	CHARACTER COUNT	8911
SUBMISSION ID	96418980		



Enterprise & Innovation

Jack Rawlins – Games Development

- p1707007

- ▶ **What is my contribution to the business?**

- ▶ I am the leader of the team so I will be making sure that everyone is communicating and making objectives that they are doing/done is kept up to date as well as giving general help to each member if they need it

Table of Contents



- ▶ 2. Jack Rawlins
- ▶ 3. Table of Contents
- ▶ 4. Meet the Team!
- ▶ 5. Communication
- ▶ 6. Tracking Objectives
- ▶ 7. Team Working
- ▶ 8. References

Meet the Team!

- ▶ Callum Cross – Head of the Android Development and Marketing
 - ▶ Gathering market information, Android Programming
- ▶ Jack Partridge – Head of Design and Business
 - ▶ Creating Logo, Slogan, Objectives
- ▶ Jack Rawlins – Team leader and Organizer
 - ▶ Deadlines are met, Communication is constant and general support
- ▶ Will Baker – Head of Production
 - ▶ 3-D printing and Arduino coding

Communication

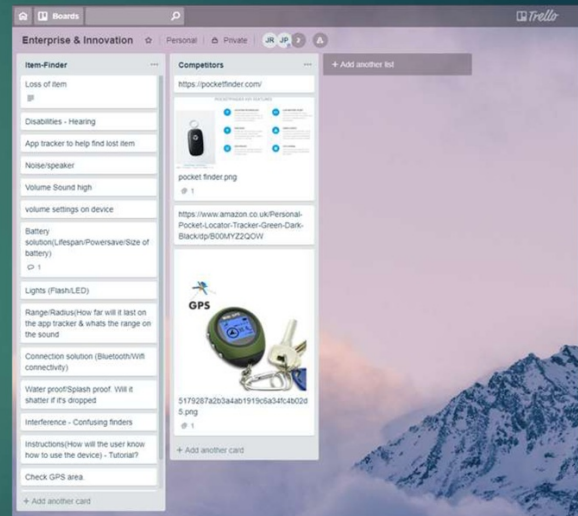


- ▶ We are going to use a few different ways to communicate such as letting people know what has been completed, the methods we plan to use include Discord and Messenger.
- ▶ Discord will be used to share files and Voice to talk about progress and things that may need to be sorted and what could/should be done next.
- ▶ We will use Messenger as a general chat about information such as organizing Discord calls or to discuss less specific topics about the project.

Tracking Objectives

We will be using Trello as a way of listing and tracking our ideas, so we can all know what we need and what we have done.

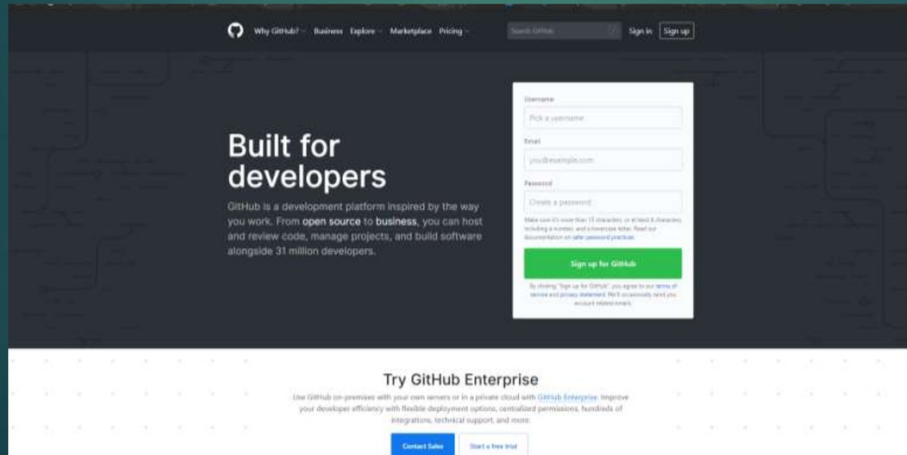
Trello will allow us to assign objectives to different people and set deadlines for those tasks, that allows the team to know exactly what they are doing.



<https://trello.com/b/bhcPtncP/enterprise-innovation>

Team Working

- ▶ We will be using GitHub to host our code so that each one of us can view and contribute to the creation of the code and so that we are able assist each other to make the program as good as possible



<https://github.com/>

References

- ▶ How to be a team leader: <https://www.greycampus.com/blog/project-management/how-to-become-an-successful-team-leader>
- ▶ Commination tips: <https://blog.azendoo.com/8-ways-to-improve-team-communication/>
- ▶ How to meet deadlines: <https://business.tutsplus.com/articles/14-essential-tips-for-meeting-a-deadline--fsw-240>

Callum Cross – Software Engineering

- ▶ **What is my contribution to the business?**

- ▶ As a member of the team I have been allocated to both the marketing for the project and I also will be doing the programming side of the android application for the project.

Table of Contents

- ▶ Slide 11: Is there a market for our product?
- ▶ Slide 12: Who are our competitors?
- ▶ Slide 13: How is our product different?
- ▶ Slide 14: Who is our Target Market?
- ▶ Slide 15: References

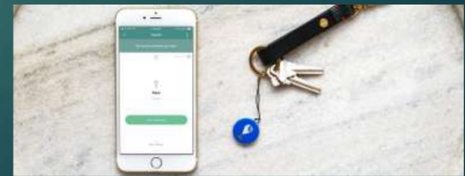
Is there a market for our product?



- ▶ A market has been shown by other competitors who are still striving and selling their own product to beat the rest of the market.
- ▶ The market is very competitive but there are some features that have not been added to their product that we think could make our product stand out and be more useful for finding personal items.
- ▶ These include:
 - ▶ Bluetooth 5.0
 - ▶ Led Lights
 - ▶ Higher Search Range
 - ▶ Unique Design

Who are our competitors?

- ▶ PocketFinder – They are a company that sells multiple product covering from small devices that can track items to GPS Trackers built in vehicles. They sell their products at a starting price of \$99.99.
- ▶ TrackR – Their main product is a item tracker that can be attached to your personal belongings. Their starting product price is \$9.99.
- ▶ Tile – Our main competitor has multiple devices selling as low as £13. They have sold more than 15 million units in 6 years.



How is our product different?

- ▶ Bluetooth 5.0: The new capability of Bluetooth allows us to reach distances as far as 240m instead of version 4.2 where it could only reach 100m. [2]
- ▶ Our design will allow us to play a loud noise and flash lights to be able to locate the device, via our application. [2]
- ▶ The product will have a battery life-span of up to 1 year comparing it to our competitors who reach only 6 months. [2]

Target Market

- ▶ The target market we would like to focus on is the general public so anybody can use our device. For our product to be a success we would need to it to be easy to use and simple. [1]
- ▶ Our target market could also be aimed towards people with Mental Health issues such as Dementia which would remind them not to forget their important items. [1]

References

- ▶ [1]Inc.com. Porta, 'How to Define Your Target Market', 2017 Published. Online. Available: <https://www.inc.com/guides/2010/06/defining-your-target-market.html>. 29-Nov-2018
- ▶ [2]nichepursuits.com. Haws, 'The Ultimate Guide to Creating a Comparison', 2018 Published. Online. Available: <https://www.nichepursuits.com/guide-create-a-product-comparison-chart/> 30-Nov-2018

Will Baker – Software Engineering



► What is my contribution to the business?

I have been given the task of creating the production process. This includes deciding on the equipment we need how it will be used.

Table of Contents

- ▶ Slide 18: Hardware Requirements
- ▶ Slide 19: Software Requirements
- ▶ Slide 20: Resources
- ▶ Slide 21: Prototype 1
- ▶ Slide 22: Prototype 2

Hardware Requirements

Fr:1	Bluetooth connectivity
Mh	The device needs to be able to connect to the mobile app via Bluetooth.
Fr:2	Long battery life
Mh	The device needs to be able to last a long time on a battery.
Fr:3	Loud buzzer
Mh	The buzzer needs to be loud enough for the user to hear it from a good distance.
Fr:4	LED "Beacon"
Ch	A blinking LED could be added to light up the device in dark environments.

Software Requirements

Fr:1	Bluetooth connectivity to device
Mh	The app needs to be able to connect to the device via Bluetooth to send and receive data.
Nfr:2	Support for multiple devices
Mh	Ideally we would like the app to allow the user to add multiple devices.
Nfr:3	Show battery life of device
Ch	The app could show the remaining battery of the device, and notify them when it drops below 10%.
Nfr:4	Show estimated distance of device
Ch	Showing an estimated distance of the device would be a good
Nfr:5	Naming / Labelling devices
Ch	Allowing the user to name their devices would help them know which one is for what.

Resources / Equipment

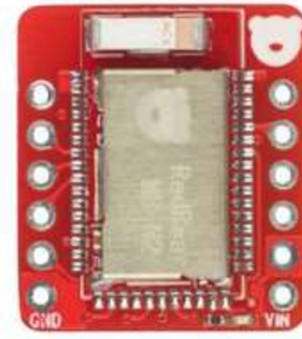
- ▶ Circuit Components
 - ▶ Microcontroller
 - ▶ Bluetooth module
 - ▶ Coin Cell Battery
 - ▶ PCB
- ▶ Soldering Iron
- ▶ Solder
- ▶ 3D Printer
- ▶ Plastic Filament (PLA)

Prototype 1

- ▶ Will use an Arduino and a Bluetooth module.
- ▶ Will be connected using a breadboard as it is not a permanent solution.
- ▶ Used to test connectivity to the app.
- ▶ Able to provide power and upload code by USB.

Prototype 2

- ▶ Created using a RedBearLab BLE Nano V2, a SoC (System on a Chip) device that has Bluetooth 5.0.
- ▶ The Nano V2 will allow us to run the same Arduino code as in the first prototype.
- ▶ Will be soldered to a PCB, along with the buzzer and the battery.
- ▶ This SoC only uses a small amount of power, it's able to run on as little as 3volts.
- ▶ 3D Printed case.



21 mm

18.5 mm

New Version 2

References

1. Nano V2 Specification: <https://github.com/redbear/nRF5x/blob/master/nRF52832/docs/Specifications.md>
2. PLA vs ABS Filament: <https://www.3ding.in/pla-and-abs-filaments-compared>

Jack Partridge - Games development

p1702918

► **What is my contribution to the business?**

As a member of the team I have been allocated the role of product & business branding designer.

Table of contents

▶ The product itself

- ▶ Slide 26: What is our product Idea?
- ▶ Slide 27: The design of the product?
- ▶ Slide 28: What makes our product different? (USP)

▶ The business design aspect

- ▶ Slide 29: Trading name, Logo & slogan
- ▶ Slide 30: Legal classification
- ▶ Slide 31: Mission statement
- ▶ Slide 32: Objectives & goals

The Scout

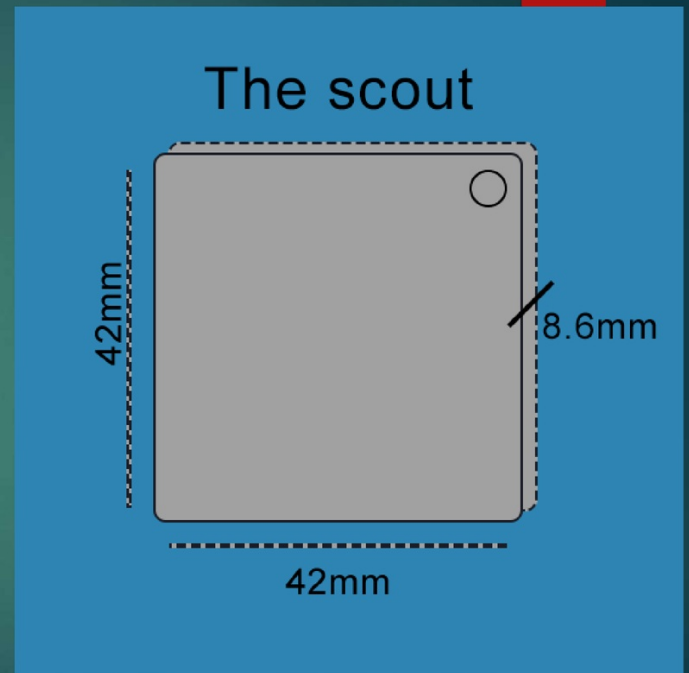
Designed to help find a person, device or other "key" essentials that people tend to misplace.

- ▶ Cheap and affordable
- ▶ Size of device (42mm x 42mm x 8.6mm).
- ▶ Built in speaker w/Buzzer.
- ▶ Bluetooth connectivity up to 240m.
- ▶ Long lasting battery life.



Design of device

- ▶ Simple minimalistic design able to fit into your pocket, bag or attach to a keychain if preferred.
- ▶ Designed with a light weighted plastic.
- ▶ We can allow for a picture to be printed across both ends of device for more customizability.
- ▶ Sleek design with smooth edges and up to 5 colour's to select from.



Why us over other(s)?



▶ Price over others!

We aim to have the cheapest price on the market for what our device can achieve!

▶ Design & printing

We accomplish the users needs by fine printing their unique design onto our devices!

Business design

► Logo design and inspiration

Logo name
"Quick search"

Slogan
"Quick to the tick!"



Legal classification

► Private limited company

Advantages	Disadvantages
Limited liability (debts)	Costs associated (Set up & administering the business will be higher)
A raised capital (shares)	Auditing procedures apply
Unlimited lifespan	Stringent accounting
Management team or directors control the business	
The directors are salaried & will pay normal rate (tax)	
The business can get looked as more professional than sole trader.	

Note: A private business is beneficial in the tax perspective but not in the personal earnings.

Mission statement

What is a mission statement?

The purpose of a mission statement is to get your business' idea and what it aims to achieve whilst staying **Clear, Concise** and **Useful**.

3 nonprofit examples below:

TED: Spreading ideas.

USO: Lifts the spirits of America's troops and their families.

Best Friends Animal Society: A better world through kindness to animals.

Our organization's mission statement:

Quick Search: Seek & save.

Objectives & goals

Goals

We aim to make affordable products that are capable of either saving lives, reducing the time taken to rescue or find a missing people.

As a business we would like to have intrest in a multipurpose device so not only can it help find people but misplaced items too.

Invent & innovate products to help improve the unfortunate events of natural disasters. This can be help with reducing the costs or time of reconstruction, system to help record data or more.

Ramp up the productivity for our business whilst expanding in size.

Aim to reduce the high expenses of products out there that can be more affordable for everyone.

Hopefully find new opportunities to network.

References – Jack P

- ▶ Magnifying glass icon: Used in the logo design
https://vignette.wikia.nocookie.net/deusex/images/9/9b/Magnifying_glass_icon.png/revision/latest?cb=20141205155051&path-prefix=en/
- ▶ Legal status of our business: <https://hwchamber.co.uk/support/advice/starting-a-business/legal-status-of-your-business/>
- ▶ Mission statements from top nonprofits: <https://topnonprofits.com/examples/nonprofit-mission-statements/>

Assignment 1

GRADEMARK REPORT

FINAL GRADE

73/100

GENERAL COMMENTS

Instructor

PAGE 1

PAGE 2

PAGE 3

PAGE 4

PAGE 5

PAGE 6

PAGE 7

PAGE 8

PAGE 9

PAGE 10

PAGE 11

PAGE 12

PAGE 13

PAGE 14

PAGE 15

PAGE 16

PAGE 17

PAGE 18

PAGE 19

PAGE 20

PAGE 21

PAGE 22

PAGE 23

PAGE 24

PAGE 25

PAGE 26

PAGE 27

PAGE 28

PAGE 29

PAGE 30

PAGE 31

PAGE 32

PAGE 33

CALLUM CROSS

73

1. RESEARCH LITERATURE

Extent of research and/or own reading, selection of credible sources, application of appropriate referencing conventions.

-  There was no citation (in-text), but you have included bibliography where it should have been a reference list to reflect the in-text citation. Poor engagement with essential reading. No evidence of wider reading. Reliance on inappropriate sources Your bibliography is not IEE formatted Note: 2 citation – reference list not IEEE 4

2. KNOWLEDGE AND UNDERSTANDING

Extent of knowledge and understanding of concepts and underlying principles associated with the discipline.

-  Knowledge is reasonably extensive. Exhibits very competent critical understanding of the well-established concepts and principles of the subject and the main methods of enquiry. Note: market research, decisions made are based on research. Competitors research , differentiation. 16

3. ANALYSIS

Analysis, evaluation and synthesis; logic, argument and judgement; analytical reflection; organisation of ideas and evidence.

-  Sound critical evaluation and analysis of concepts. Is selective in the range of evidence used and synthesises rather than describes Note: market research, target market. 18

4. PRACTICAL APPLICATION

Deployment of methods, materials, tools and techniques; application of concepts; formulation of innovative and creative solutions to solve problems.

-  thoughtful design decisions such as battery life 17

5. PROFESSIONAL PRACTICE

Attributes in professional practice: individual and collaborative working; deployment of appropriate media; presentation and organisation.

-  well, confidently and consistently in a suitable medium for the audience. Work is coherent, fluent, well-structured and organised. 18