

# The Laptop Project (TLP)

## Notice

*This is the document that was used while planning the project - the project is now **LIVE** and while many of the principles in this document remain **true**, some aspects will inevitably be updated through the life of the project.*



## Background

My name is Brandon Powell. I'm a sole trader based in Sheffield, and I sell online electronics like mobile phones and computers primarily through eBay.

My website plays host to a blog. I publish a new post roughly every week (at the time of writing) – it's difficult to define any particular focus... My blog is generally based around Linux and my life and acts as a place I can share my thoughts and socialise with the wider world to some degree.

As a teenager, during secondary school I struggled to write legibly – I have dyspraxia (fine motor control difficulties) which meant that most teachers couldn't read my hand-writing. Because of this, I was entitled to a word processor (laptop) to do my work on.

This continued into my days at Sheffield College – after a few weeks of being hounded by my English tutor to write more neatly, I was given a small laptop for the express purpose of helping her to read my class work.

Furthermore, beyond just my personal experiences, this project received a “jumpstart” in the COVID-19 pandemic of 2020 when a high number of people were forced to work from home - a difficult task if you *only* own a smartphone and can't afford a laptop or desktop computer. I really wanted to “get the ball rolling” as much as I could to help some people keep their jobs through these challenging times.

## Introduction

The TLP project is a project that I'm very passionate about, despite it's overly simplistic name. Partially because of my personal experiences, but also because this is something that I've put a lot of time and effort into planning already at the time of beginning this document.

The first remnants of the idea date all the way back to shortly after I left college, when I was discouraged by the complexity of things like tax requirements. The first "serious" consideration of the idea was when my business partnership S-City Tech (Star Technology) which abruptly ceased trading due to unforeseen circumstances *before* planning for the project was completed or acted upon.

What will set TLP apart from other projects is the way it's going to be executed. I don't intend to make a large profit from the project – my only requirement in terms of finances is simply that the project doesn't incur **net** losses.

## Basic Concept

TLP will be a project with many aspects to consider which are depicted below – However, the entire project can be broken down into one overall goal – to affordably provide technology (primarily laptops) to people who may struggle to get it on their own and to deliver assurance that for the price the customer paid, the device *will be* suitable for it's **advertised** purpose.

## Target Audience

In general, the target audience for this project is anyone who needs it. From the research I've done so far, this is currently thought to be a relatively limited collection of groups due to the abundance of things like smartphones that the vast majority of people possess. These groups include job-seekers, students and people living below the poverty line.

## Average Use-case

Using the target audience as defined, it's considered that a general light use-case consisting primarily of web browsing and word processing is the most probable that hardware from this project will encounter.

## Hardware Types

## Smartphones

These devices are highly portable and generally easy to use, however they are limited to a small size, generally less than 7 inches. This makes processing large documents difficult. They are also very common in modern times, so the majority of customers will already have one of these types of devices.

## Desktop PCs

These devices are undeniably powerful compared to their smaller counterparts, however they are stationary devices – they cannot be moved easily, with separate devices like a keyboard, mouse and screen being required to use them. Additionally, they always require a connection to power source to be used.

## Laptops

These devices are essentially scaled-down desktop towers, with keyboard, mouse, screen and battery power all enclosed within one unit. Making them much more portable, at the expense of computing power. However, the batteries inside these units tend to be prone to failure.

## Tablets

These devices are a good middle ground between Smartphones and Laptops. They tend to be larger than smartphones and support physical keyboard accessories. They also tend to be easier to use, with the overwhelming majority of them being powered by Android or iOS. However, demand for these devices has diminished recently and the supply of reliable units and components for them is limited.

## Conclusion

Considering the target audience and average use-case as defined, laptops appear to be the best all-around choice because they and parts to repair them are readily available, they are a standalone unit which don't require a separate TV or monitor to use, their computing performance is adequate to the use-case and they have dedicated keyboards which will make word processing easier.

Because of their versatility, my project will focus on laptops. However, they don't suit all situations. Therefore, under some conditions, users can request a different type of device, if necessary. This will be detailed later in this document.

## Hardware Specifications

Through my own experience and careful consideration of the use-case as discussed, I've determined a list of target hardware specifications. These specifications are the *target* as opposed to the minimum or maximum specifications - as there are also availability, compatibility and financial considerations that need to be made. These specifications are as follows:

- Screen size around 12-14 inches (30cm–35cm)
- Screen resolution 1366 x 768
- The screen should be sufficiently bright to support outdoor usage
- The device should have at least a headphone jack, a USB 2.0 port and a charging port
- eMMC or SSD Storage Technology

Additionally; some specifications are **mandatory**:

- All hardware should be *fully* compatible with generic Linux drivers (Linux kernel 5.4 LTS) **OR** drivers should be readily available via Ubuntu's *default* software repositories, for example Lenovo's late-model touchpads don't work, and wouldn't be acceptable
- 2.4ghz WiFi
- Storage space of 64gb or more
- Battery life should be at least 2 hours in a reasonable use-case test **OR** 1 hour in brightly-lit conditions under the same reasonable use-case

## Delivery

Due to the *static* nature of my own website (post-November 2020) it is not possible on a *technical* level to integrate an eCommerce storefront directly into my existing infrastructure. Therefore, a dedicated, new website will be needed from a service such as [Shopify](#) or [Square](#).

## Finances

There will be no minimum price per-unit of the project, however, the maximum per-unit cost will be £150. Per-unit prices include the cost of the original device and any replaced components such as SSD's. Cost of delivery is not included in this figure.

The finances of this project will be based on a "funding pool". Laptops will be sold for the target price, regardless of their combined price for purchase, repair and

When a profit is made, 100% will be placed in the funding pool. When a loss is made, the impact will be on this funding pool. All purchases of laptops, parts and consumable supplies (e.g. cleaning equipment for these devices) will be drawn from the funding pool, as well as any overhead costs such as memberships.

Additional external funding (e.g. grants or donations) may allow for concessions to be made for consumers in particularly dire financial condition, as doing so without extra funding, while theoretically conceivable, could affect the project's sustainability over time. Furthermore, sale of spare parts from irreparable laptops can contribute to the funding pool for future devices. Consumable components such as batteries cannot be resold in this way.

## Logistics

The logistics of a project like this have potential for complications and are likely to be a major point of improvement through the life-cycle of the project. To begin with, I believe the best option is to buy damaged or incomplete from places such as [CeX](#), [eBay](#) and Facebook marketplace. These damaged devices can then be repaired, or if necessary, broken down into spare parts for other laptops. The refurbished device can then be put into the supply pool of this project (which is the preferred goal), or if the device doesn't meet the requirements as discussed it can be broken down for parts which are used to repair other devices or simply sold on eBay to contribute to the funding pool.

Because of this model, it's likely that drops in availability of damaged devices will affect the whole project and slow down the delivery of units to consumers. One way to avoid this in the future could be to partner with an OEM laptop manufacturer for a small selection of brand-new purpose-made laptops for the project which can bolster the supply. However, in order for this to be viable, both demand and funding must be quite high.

## Policies

Usual practices that help to make things cheaper such as credit or renting are difficult to implement and enforce, and are often regulated strictly. Therefore, initially I believe it will be beneficial to keep things quite simple. Once a laptop is purchased, it's owned in full by the consumer.

Of course, I understand that I'm not impervious to making mistakes. If consumers

basis based on the hardware requirements and on the specific circumstances. A full explanation as to the reason behind my decision will be provided.

However, I believe that in order to differentiate my service through this project, there should be a special refund process implemented. Specifically, I believe that every unit shipped should carry a guarantee that it will be suitable for its **advertised** purpose for a set period of time. 90 days seems to be a good middle-ground, however this may need to be extended or contracted later in the project. If a unit becomes unsuitable for its **advertised** purpose within this time period due to **standard wear**, or indeed, it was shipped in an unsuitable condition, the customer should be fully refunded upon return of the unit.

For this policy, the return postage will be initially paid by the customer. Upon arrival, the unit will be subject to a review by myself. If I find that the unit is eligible for refund under this policy, return postage will be refunded along with the original unit cost. If I find the unit to be ineligible, I'll post the unit back to customer along with a full explanation of my decision.

## Payments

The majority of payments for this project will be done via invoices sent by email. Some on-site payments (e.g. in Schools or Colleges) can also be done with a cash box.

To aid people with financial struggles to access the project, it will be possible to *reserve* a unit in advance. A 30-day reservation window will require a deposit of £30 and a 90-day window will require a deposit of £50. Reservations can be refused if an individual has a poor history with previous reservations, or if there's reason to believe that it was made under false pretences, such as the consumer having no intention to complete the purchase within the window.

When a reservation is made, a specific unit is set aside and the full deposit is subtracted from the purchase price of said unit. The consumer will then be sent an invoice for the remaining amount due to be paid by the end of the reservation window. Should the window pass without full payment, any amount paid (including the deposit) will be refunded to the customer and the transaction cancelled.

## Partnerships

It may be beneficial to the project if some other entities take part in key areas as

project's web page/site with a logo and a link to their website for the duration of their partnership.

## Procurement of units

The initial procurement of laptops. This area will be crucial to have partnered entities which can help to overcome drops in supply from other sources.

A procurement partner could negotiate a price for each unit based on condition, eligibility to the [specifications](#) and price of any components required to repair or refit the unit, or a bulk price for a collection of units.

## Distribution

Distribution of units in a local area. This will, once again, be crucial to have partnered entities available to deliver units around a local area. Especially when delivering multiple units in a small area. Local multi-drop deliveries will be more cost-effective than dispatching several separate units by full-priced courier.

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