**P5. Produce information from a variety of stakeholders to explain the potential impact of the suggested computing technology development implementation on an identified organisation.**

**Impact assessment of potential impact:**

There are many different opinions based on this idea. For instance, many people are for this idea, however, there are also people who are against the idea. To keep this feedback assessment, the stakeholders asked will be based on the specified area of development. Some people agree that there are potential impacts whereas others disagree.

* **Health and safety**

In the texture of drones in health and safety, they can be very advantageous in the health site. A wonderful way to explain this is with the covid – 19 outbreaks. Due to pandemic and self-isolation, most individuals have not been able to leave the house. Having drones would help with health as it can transport medicine, test kits and other equipment without human-to-human contact.

There are some safety risks with using drones to transport goods, the most common one being damage. This can be either to your order as the drone is landing or damage to you if the drone loses control. If drones are not well tested beforehand this can result in drones dropping parcels, this may result in injury to yourself.

* **Environment**

Like the safety act, some people agree that using drones for package transportation can be a disadvantage to the environment. The main conclusion to this is if the drones are not well implemented and crash. They can result in crashes for example: trees, houses, buildings, utility poles and many others. If the drones have good testing phases, then there will be less risk.

In contrast to this, drones can get damaged due to weather conditions. Water damage can be seen on this which will result in program failures. Another weather impact is fierce winds and storms, these can result in drones very easily losing control.

On the complete other hand, many agree that using drones for package delivery is a great scheme. The reason being that using drones will reduce cars on the road which can help prevent traffic bunching. It will also reduce carbon emissions which will be good for the environment.

* **Security**

The biggest security concern for using drones is connections. The drones will need to be well secured and tested before they are launched out. For example, if the drones connect to other devices, control can be lost easily. As well as safety hazards, individuals who hack into the drones will be able to do all sorts. Because the drone has moved away from its original starting point connection from the first device will be loss and harder to reconnect.

**p.6 Develop a plan to implement a technology development within an identified organisation and to manage the associated risks.**

**Steps for implementation**

When creating anything whether it be hardware or software, related to technology or not, the following 4 steps should be carried out. The main reason for this is to have a successful design and not have to take it down due to maintenance.

* **Design**

The first step would be to create a plan for design. For example, in this instance we would draw out a sketch of how the product, which is a drone, will look. After we have a drawn-out design, we can begin sculpting it. Finding materials and other resources. During this stage, we also need to create a program for the drone. Installing cables, batteries, hydraulics, and others on our item is also included in this stage. After this is all done, we can move onto the next stage, which is testing.

* **Testing**

Once the design phase is completed, we can begin testing. Testing is one of the biggest factors, without testing, most tasks will fail. In this stage, for example, we would try out our design. We will test to see if the drone is working and if the code behind it is Aswell. Anything not working at this stage can be amended before we move on to the next phase.

* **Review**

At this stage of implementation, we have designed and tested out what we have made. At this point in the implementation process we will ask others for a review. This can be anyone at all. Some may ask people withing their work environment whereas others might ask outside of the industry. Getting reviews from others is another critical aspect of this process. Having review allows us to think back over our ideas, some of the feedback we may agree on and others we may disagree with. However, acting is completely up to you. Some ways in which you can receive feedback are questionnaires, meetings, emails.

* **Risk management**

The last step which should be looked at before implementing your work is risk management. This can mean making sure that your design is not a risk or harmful in any way. You can check this in many ways. One example which can be seen in many areas is legal constraints.

**P7. Review a plan to implement a computing technology development in an organisation, considering feedback from others and identifying improvements.**

**Feedback response**

I have created a plan to develop a drone which can send out parcel deliveries to the local town. I will now ask some stakeholders and other people who live locally Aswell as closer towns. By getting feedback I can see which areas may need altering and which parts are good.

* **Stakeholders**

Most stakeholders had positive responses against my design. However, most of them were similar and Maily positive. I think I will still ask a few more people and people from outside of our industry.

* **Areas of change**

One I receive the final feedback from multiple stakeholders and individuals, I will have a look at which area they suggest need the most change. If one person thinks a change should be made somewhere but not everyone else or myself then I may leave that area the same.

**P8. Review the potential social impacts of a plan to implement computing technology development in an organization.**

**Test plan**

|  |  |  |
| --- | --- | --- |
| **What am I testing?** | **What are the expected results?** | **Outcome** |
| Is my product and design following the law? | My product will be environmentally friendly. | I have developed a safe drone which is well designed to avoid damage to people and property. |
| Does my design fall into copyright? | There will be no copyright on my intended product. | The design of my product has been developed by myself independently without any sources. |
| Does the drone work? | The drone should operate as planned. | The drone is corresponding as intended in the first stage of planning. |
| Is the drone accessible? | Once the program is running the drone should work. | I used 3 different devices and ran the application which was developed to control the drone and they are all working. |
| Is the drone secure? | The drone should have a gps tracker and camera installed. | The final design has an embedded gps tracker and cctv in the drone. |
| Can the drone transport packages? | This done will be able to pick up packages and move them around | Yes, drones can pick up packages and move them around. |

During the 4 stages of implementation for any design on any task, it is crucial to carry out the following checks.

**Legal constraints**

Anything which can go against the low or against any acts is seen as a legal Constraint. In related topics to this, the most common legal constraint in implementation is copyright. During the first stage, in designing, you should make sure that your design is unique and not copied from anyone else as copyright will be used against you. There are so many other legal constraints, however this one is the most common for implementing.

**security measures**

When implementing a project, you will need to be cautious about any security measures. A few common security measures are:

* CCTV
* Alarms
* Firewalls
* data access
* Encryption

As you can see there are physical security measures Aswell as technological measures. One should stay cautious of these and have a backup plan ready in case anything happens.

**Social media impacts**

Social media has been improving over the years, we can use social media to help us develop latest ideas Aswell as get opinions. There are so many ways to get opinions from online, such as:

* email
* Posts
* Commenting
* messaging

Social media can have a significant impact to help boost audience as there are many promoting social media platforms. This can be immensely helpful once all stages of implementation are completed, and the design is out.

**Smart targets**

Every project should consist of SMART targets. The acronym SMART stands for:

* Specific
* Measurable
* Achievable
* Realistic
* timely

You can avoid using confusing or misleading aim by setting clear goals with the guidance of SMART goals. Specific instructions and goals. You may be certain about what you would like to accomplish and when you are expecting to do so when you have SMART goals.

**M3. Analyse the scope, boundaries, and constraints of a computing technology development implementation plan for an identified organisation**

* **Scope**

Project implementation includes a component called project scope that aids in establishing objectives, limitations, workflow management techniques, tasks, and deliverables. Individual contributors' workloads can be managed more effectively by clearly specifying the project scope.

To keep coworkers on the same page, the project's scope must be clearly specified and published. Discuss major obstacles and constraints that could cause deadlines, spending, and deliverables to get delayed. Setting these project standards reduces the possibility of unexpected issues.

The scope of this specific task is to design a flying drone which can send packages off to houses in the local area. After designing I need to test and review it before I can release it. Throughout the problems, there may be problems, such as if copyright is found, changes will be needed. While we work through the project, we are expecting to come across some boundaries and some constraints.

* **Boundaries**

Project boundaries work as the precise measures for what clients and project managers have decided falls under the responsibility of project activity. People working on the project can include an element defining the project limits inside the project scope, which will make it obvious how much work is expected of them. The project's stakeholders can all agree on the boundaries because they are measurable. Everyone engaged can benefit from having a clear understanding of the outcome clients anticipate from project managers.

Below are some key components which I will keep in consideration for my task.

* Project end goal and smaller goals
* Phases of the project
* Roles given to individuals
* Scope of project
* **Constraints**

The term constraints refer to any components which result in collision to delivery, quality, and success overall. These can all be seen in any working projects. Having a plan from the beginning, and a backup will result in a lot of saved time.

Overall quality of a project can be broken down into 3 sections, these are scope, time, and cost. The justification for this is because changing the expectation of the quality will cause a change in the time, scope, and cost of the project. Having a consistent plan from the start will avoid this constraint.

Another common Constraint which can have a huge effect on your project is time. A wonderful way to manage time is by creating a time frame and allocating roles to people who are free Aswell as experienced. Giving these out to the rest of the team will result in knowing what task shall be completed by when. If you are running low on time, the result of the task will be incomplete. If for any reason time is running low and you are unsure if you will meet your deadline, asking your client for some more time would be crucial.

Cost is another area which is looked at as a constraint. If the budget is too low for the project, then the client should be aware before work is started. The reason for this is because you may run out of money while working on the project and the client may not offer more and blame you for not telling them before. The cost of a project is broken into 2 parts, paying off workers which is paid in hourly costs and market rates. Market rates are the expression for the cost of raw materials, services, and raw goods.

In this task, I will keep all of these in mind therefore I will not be stuck throughout the task. By ensuring all these before making progress on my work, I shall be able to complete the task within the time and before the deadline while sticking to the budget Aswell.

**M4. Justify the choices made to manage the risks associated with a computing technology development implementation within an organisation**

**Risk assessment of potential impact:**

* **System attacks**

A system attack is a strategy to breach to gain entry to a resource without authorization. Malicious and unintentional threats are two categories of security breaches that damage the system. Malicious threats are, as the name implies, destructive software or scripts for websites intended to cause system weaknesses that could open back doors and compromise system security.

It is important that we have backups saved in case any data gets lost, stolen or deleted. Another key factor is knowing who has access, access should not be given out to everyone as even peers or apprentices may attempt a system attack.

* **Criminals**

When using technology to develop a new device/gadget, criminals will always try to find a way to cause trouble. Whether it be by theft of your implemented and manufactured work or even your devices used for the aid. Criminals are not only in person, but we can also find distinct types of online Aswell with technology so we must be careful. When sharing files, applications, scripts with others online we must make sure we are sharing with the correct person and not someone else with a similar profile.

In some cases, sharing files online can be used for collaboration. This means that they can edit the files by adding or removing data. Adding someone untrustworthy can lead to file deletion and theft.

**D3. Use feedback to evaluate the plan to implement a computing technology development in an identified organisation and the suggested improvements.**

* **Meetings**

Carrying our meetings is beneficial for organisations and businesses. When working in a team, meetings should be held for several reasons. The main reason meetings should be held on group projects is to catch up with everyone and see how they are doing with the work.

Meetings are a wonderful way to get feedback on how you have done. Whether it be given to you by your boss or a peer, any information received can be beneficial.

I held a meeting with the entire crew which is helping me implement the drone to transport parcels. The meetings consisted of lots of questions and taking notes. Taking weekly meetings is beneficial so we can see where we are with the project and if we are successful with our time management.

* **Interviews**

Taking interviews can be another way of receiving feedback. This can be done 1 to 1 or even in groups. We see interviews at job hiring, this is because the purpose of interviews is to learn about the other person. If we put this into the context of our project, we are asking others about our ideas and getting their input, vice versa.

The most important aspect of the interview would be the feedback left, where it is from the one taking part or the other. When working on projects such as the one I am taking part in, interviews are slightly less common within our team, however interviews with the client are more frequent.

* **Questionnaire**

Questionnaires are the greatest way of receiving feedback. A few reasons for this are because: they are simple to make and can easily be shared in a variety of ways. For example, via message, email, letter, leaflet, and many others.

I carried out a public questionnaire, and by doing this I was about to ask the local public their thoughts about this project. Below are a few questions which I asked.

* Do you think drones are safe?
* Do you order packages to your house?
* Would you like to see drones which can be delivered to your house?
* Do you think drone transporting will reduce carbon emissions?

**Questionnaire 1**

|  |  |
| --- | --- |
| Question | Response Y/N |
| Do you think drones are safe? | Y |
| Do you order packages to your house? | Y |
| Would you like to see drones which can be delivered to your house? | Y |
| Do you think drone transporting will reduce carbon emissions? | Y |

**Questionnaire 2**

|  |  |
| --- | --- |
| Question | Response Y/N |
| Do you think drones are safe? | N |
| Do you order packages to your house? | Y |
| Would you like to see drones which can be delivered to your house? | N |
| Do you think drone transporting will reduce carbon emissions? | N |

**Questionnaire 3**

|  |  |
| --- | --- |
| Question | Response Y/N |
| Do you think drones are safe? | Y |
| Do you order packages to your house? | Y |
| Would you like to see drones which can be delivered to your house? | Y |
| Do you think drone transporting will reduce carbon emissions? | Y |

**Questionnaire 4**

|  |  |
| --- | --- |
| Question | Response Y/N |
| Do you think drones are safe? | N |
| Do you order packages to your house? | Y |
| Would you like to see drones which can be delivered to your house? | N |
| Do you think drone transporting will reduce carbon emissions? | Y |

**Questionnaire 5**

|  |  |
| --- | --- |
| Question | Response Y/N |
| Do you think drones are safe? | N |
| Do you order packages to your house? | Y |
| Would you like to see drones which can be delivered to your house? | Y |
| Do you think drone transporting will reduce carbon emissions? | Y |

**feedback received:**

All the answers I received from the public who gave feedback were all yes. A few people disagreed with the fact that they are safe. They said it would be a great idea, but they are unsure if they would want it due to the damage. This was the only area which needed working in.

From what I have received, I am happy with the feedback, and I also got some suggestions from those who reviewed the questionnaire. I will consider what I have been returned with. I just need to find a way to make this safe before implementing.

From all the questionnaire's I took down some notes and recommendations from the recipients which I will use to assist my changes

**Changes made from feedback**

I have concluded that my overall idea will remain the same, but I will make Sure that the drone is safe, and no harm is made to any individual or property. Most of the changes will not be visible as they are part of the scripting, but there are extraordinarily minor changes made to the design of the drone. For example, the drone will have rubber around the blades to avoid injuring anyone if it comes close. There will also be an alarm sensor which will beep if it comes too close.

**D4. Demonstrate individual responsibility and effective self-management in the development and review of a plan to implement a computing technology development.**

**Performance through task:**

* **Time**

Throughout the work I have been involved with throughout this project, I have managed my time well. The main reason for this is because I made a time chart which shows me which sub tasks need to be done and by when. By following the chart, I was able to stay up to the task and continue at a good speed.

* **Professionalism**

Throughout this task I have shown professional. For starters, I was made to attend when needed, for example, meetings and interviews. My attendance led me to complete my task on time and check on the rest of the project to see where everyone else is with their work. Throughout the project, I dressed appropriately and made sure all my work was complete before engaging with others to avoid distracting them and myself. I had a good attitude towards this task and showed great manners to everyone involved and the public who gave me feedback.

* **Leadership**

I managed to show great leadership throughout this project. For instance, I began by making sure everyone was involved and had a role which they could be working on. By doing this nobody was left out and no time was wasted. Another way I showed leadership was by listening to and communicating with others at the meeting. I think the most important aspect which showed I had great leadership was when we came to mistakes, I was very quick in correcting them or even replacing them.

**communication skills:**

* **Language and tone**

Throughout this entire project, I kept a calm tone and clear voice. In some cases, such as meetings, I had to raise my voice slightly to make sure I was heard by everyone. Keeping a calm and soft tone allowed me to have a good relationship with everyone on this project and communicate with them in an enjoyable way.

* **Response to contribution**

I responded in a great manner by always staying calm and being respectful to my clients, peers, and colleagues. This resulted in getting to know each other more and having positive conversations.

**Evaluation**

During this project, I have improved most of my skills and developed new skills. I have learnt new things and shared my knowledge with others.

I managed to successfully develop a working drone which can be used to deliver low weight packages. This will be used for the local countryside after a few more final tests. The design of this drone is copyright free and trademark free. I kept this in mind during the development stage. During the development task, I was able to pull together 2 teams. One for digital design and one for the programming side. There were 2 small teams.

Once we had our design made, we put it to the test. During the testing stage. There were a few faults but as a team we were able to fix them very quickly.

After the testing was design l, we went out to get some reviews from the public. Once we had our feedback and group meeting, we decided as a team on which areas to add to. The overall review was to make the drone safer. This is when the idea of putting sensors and safety blades came apparent.

After the reviewing stage we were ready to implement the design to the public.