Tecknet Ergonomic Wireless Mouse

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Technical Descriptions assignment

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<u>Introduction:</u>

The wireless mouse is an important innovation that has changed the way people interact with computers. It has allowed users to move freely. The first wireless mouse was invented by a Canadian engineer named Douglas Engelbart in 1964 while working at the Stanford Research Institute. Engelbart is also credited with the invention of the computer mouse, which he developed a few years earlier. For example, Kowalski stated in his writing "The wireless mouse was a progression of this earlier innovation, as it allowed users to control their computers without having to use wired mice. However, it wasn't until the late 1990s and early 2000s that wireless mice began to gain popularity. This was due to the fact that affordability and availability were increasing with wireless technology, as well as improvements in battery life and performance. One key aspect of the need for a wireless mouse was the increasing preference for laptops and other devices. As more people began to use these devices, the need for portable and wireless input devices became more consistent. The TECKNET Wireless Mouse is a popular computer accessory that provides users with a comfortable and convenient way to navigate their devices. It is an ergonomic optical mouse that uses 2.4G wireless technology to connect to a computer or laptop. The mouse comes with a USB receiver, which allows it to be used with any compatible device. TECKNET is a well-known brand in the computer accessories industry, and their products are known for their high quality, durability, and affordability. The TECKNET Wireless Mouse is no exception, offering users a reliable and efficient way to interact with their devices.

Top parts and description:

Figure 1

Design

Left Button:

The left button is the primary button used to interact with on-screen elements, such as clicking and selecting certain icons. When you press the left button, it sends a signal to the computer, which then performs the appropriate function. The left button is positioned on the front left side of the mouse and is pressed using the index finger.

Six-Button Design

Anti–slipping Scroll Wheel

DPI Switch Button

Right Button

Backward

Forward

Left Button

by TeckNet Ergonomic Wireless

Right Button:

The right button on a mouse is typically used to access a context menu, which provides options when it is clicked on. For example, right-clicking on a file or folder will bring up a menu with options to rename, delete, copy, or open the item. The context menu varies depending on the software being used but often provides a quick and easy way to access it.

Scroll Wheel:

The scroll wheel on a mouse is a small mechanism located between the two main buttons that allow users to scroll up and down a document or web page. The mouse sends signals to the computer that cause the content on the screen to move either up or down, depending on the

direction of the scroll. This feature provides users with a useful way to navigate through websites quickly and efficiently without having to use the keyboard or drag the scroll bar.

DPI button:

The DPI button on a mouse allows you to adjust the sensitivity of the mouse's tracking. Increasing the DPI makes the cursor move faster on the screen while decreasing the DPI makes it move more slowly. Many mice include a DPI button, especially gaming mice due to the fact that it can be useful in different situations, such as when you want to navigate across a large monitor or multiple screens.

Figure 2

DPI

DPI

by TeckNet Ergonomic wireless

Forward and back buttons:

The forward button on a mouse typically allows you to navigate forward through web pages. The backward button, which is located next to the forward button, allows you to navigate backward through those same web pages. These buttons provide an easy way to navigate through your computer's various applications and interfaces.

Middle Parts:

USB connector:

The USB connector allows the mouse to communicate with the computer. It transmits information about the movement and clicks of the mouse to the computer, which then uses that information to move the cursor on the screen. The USB connector also provides power to the mouse so it can function.

Camera IC (Intercircuit-board):
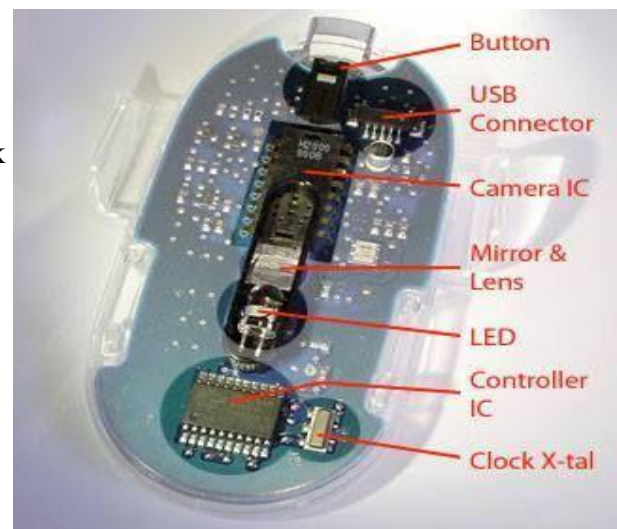
Figure 3:

Inside components

 A wireless mouse typically does not have a camera IC (Integrated Circuit). Instead, it uses an optical sensor to track movement. The optical sensor in a wireless mouse is a small device that uses an LED (light-emitting diode) or a laser to illuminate the surface beneath the mouse. As the mouse moves, the sensor captures contradicting images of the surface and uses these images to track the movement of the mouse. It is not typically used in a wireless mouse because the mouse does not need to capture images; it only needs to track movement.

By Edgefx Kits

Mirrors and Lens:

The mirrors and lens of a wireless mouse are part of the optical sensor that tracks the movement of the mouse. As the mouse moves, the sensor detects changes in the light pattern and translates those changes into movement on the screen. The mirrors help direct the light in a way that allows the sensor to track movement, while the lens helps the light focus onto the surface for sensitivity.

Overall, these components work together to make sure the mouse functions effectively and smoothly.

LED:

The LED of a wireless mouse works as an indicator of the device's status. It may light up or blink to show that the mouse is turned on, pairing with a computer, low on battery, or experiencing any technical issues. The LED helps users understand what is happening with the mouse and give them the ability to troubleshoot and fix any issues that appear.

Controller IC:

The controller IC (Integrated Circuit) of a wireless mouse is responsible for making sure both the computer and mouse are connected. It processes the signals received from the mouse's sensor and sends them to the device. Overall, the controller IC is a crucial component in the wireless mouse that allows it to function as a reliable and responsive input device.

Clock X-Tal:

The Clock X-TAL is responsible for generating a stable and accurate signal that is used to synchronize the communication between the mouse and its receiver. The X-tal is a small quartz crystal that signals a frequency when an electric current is applied to it, creating a precise and consistent time reference that is used to control the timing of the mouse's wireless transmissions. This ensures that the mouse and its receiver are in sync, which allows the cursor to have a smooth and responsive movement on the computer screen.

Figure 4

USB Receiver:

TeckNet USB Receiver/Dongle

A USB receiver is a small device that enables a wireless mouse to communicate with a computer. When you plug the USB receiver into a USB port on your computer, it creates a wireless connection with the

mouse. The receiver uses radio frequency technology to communicate with the mouse, which ensures a reliable and responsive connection. Overall, the USB receiver is an important component that allows wireless mice to function by providing the communication required between the mouse and computer.

Conclusion:

The wireless mouse is an invention that has revolutionized the way people interact with computers. It has become an important component of computer accessories, as well as its parts that have evolved over time. The wireless mouse has made computing more comfortable and has also improved the structure of computer use, as it allows for greater freedom of movement and reduces strain on the wrist and arm. In addition, the wireless mouse has become an important tool for gamers who require precise cursor movements and sensitivity adjustments. The TECKNET Wireless Mouse is an important example of the advancements made for wireless mice. It features a design that reduces any discomfort on the hand/wrist during extended use. This technology allows freedom of movement and eliminates the need for any cords. The USB Receiver provides a fast connection with your computer allowing smooth and responsive cursor movements. Overall, the wireless mouse has enhanced the experience of computer usage, making it easier, more efficient, and more comfortable.

Work Cited Page

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Figure 4 picture taken by me

Reflection

I loved the experience of this assignment because it made me gain knowledge and have a depth review of an item that I own that I never looked into. For example, I had never really bought and took apart a technical item before so being able to experience this for the first time was fascinating. Researching for this essay was a good experience because I enjoyed researching the parts that I did not have any knowledge of therefore it was fascinating to be able to see the name of the different specs on the wireless mouse and its specific function. One of my weaknesses with this assignment was finding a picture with the labeled parts of the wireless mouse I chose because I struggled researching for a picture with the labeled parts on it. Although it was time-consuming. In addition, doing the peer review session once again helped me realize a few improvements that I needed to work on such as APA format for the images as well as not including info that was needed because I did expand on some sentences that were not necessary so getting this certain feedback was really helpful. Unexpected roadblocks such as limited access to certain resources or unanticipated ethical considerations can also complicate the research process. Furthermore, this type of assignment can also help to develop your critical thinking skills and your ability to analyze technical systems. By breaking down this technical item into its component parts and examining how they interact, I developed a better understanding of how the system functions as a whole. Overall I did enjoy this assignment for these specific reasons as well as the experience I gained writing an assignment like this. The process of writing this was really helpful towards being able to go in-depth with how an assignment like this works with any item. Reviewing parts and learning the parts of a technical item was a very interesting aspect that I explored that I am looking forward to investigating in the future.