Bed Top

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What is the Bed Top?

The Bed Top is a device created by myself to allow a person to sit on their bed or floor and be able to use their laptop for long periods of time without feeling discomfort.
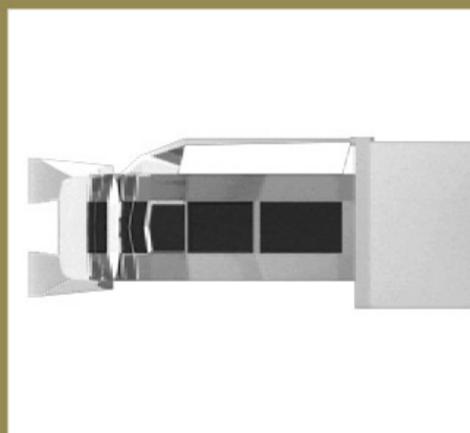
How does it work?

The Bed Top acheives maximum comfort for productiveness by keeping the person sitting in the device at a 135 degree angle. There are three main issues that arise when creating a backing at that angle. The first is that at that angle the body tends to slide down, which will cause discomfort from being at awkward angles. To address this the bottom has a cupped base, similar to racing seats, which will keep the user in place. Also, for comfort, some of the sectional pads are designed to put your own pillow(s) for personal preference.

The second issue when being seated at an 135 degree angle is straining of the neck. The Bed Top also has a slightly raised neck bar to prevent this. In addition, It can be used to help prop up a headrest, or small pillow.

The third is straining and hunching when trying to look at a laptop at that angle, which can throw off spinal alignment. The table top is designed to be at an angle that will hold a laptop & will allow a person to view the screen without tilting their head, and also at an angle that will be ergonomically comfortable for typing.

Abstract

A digital model of this conceptualized device was created using Maya. This device was created to let a person be able to sit at their bed comfortably for extended periods of time while using their laptop. Research shows the Ideal alignment for your spine while sitting is at 135 degrees. This device allows a person to sit and work at the most efficient angle for extended periods of time without straining. Future research will focus upon integrating an ergonomic design that is more efficient and foldable for easy storage.

Research Question

How can a be product be utilized to be productive in a home environment?

Process

- Conceptualized from having lower back pain, and wanting to do work/homework while sitting at my bed. I explored different pillows to see if it could be done with a specific type, was not happy with existing products. Researched what the best angle was to be sitting and then had a friend sit as well as myself to do some self testing with pillows to see how it felt at certain angles, and researched if there were any problems at that angle. Finally I made some rough drafts and then modeled the current product you see here.
- No special equipment other than pillows used to test for concept, and the Digital Fabrication Lab to print 3d printed model prototype. Full scale model coming soon.

Results

Created a ergonomic , comfortable product that is both visually appealing and healthy, as well as productive.

Conclusion

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References

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