Customice

***BASIC BUSINESS PLAN***

## DESCRIPTION

Customiced™ is a computer mouse tailored to consumers' hand sizes and grip preferences, increasing comfort and individuality. Upon placing an order online, users will receive hand impression kits with detailed instructions to construct a mouse shape that is most comfortable for their own hands and send it back to Customiced™ lab. The impression will be 3D scanned into a model, digitally processed, and refined with feedback from the user. Customized and standard components are then installed on a universal chassis. Currently, a customized top cover is 3D printed and assembled into the rest of the mouse before it is shipped to the customer.

## CURRENT MARKET COMPETITION

There is no customized computer mouse currently in the market competing with Customiced™ with this unique approach. Different shapes and sizes exist but none of the products in the market are tailored to each customer. We believe Customiced™ will fill in the need within computer mouse users who are seeking both comfort and individuality. We see Customiced™, currently priced at $69.99, taking shares away from traditional mice producers, 'ergonomic' mice manufacturers, and gaming mice makers whose mice are priced between $79.99 to $129.99.

## TARGET DEMOGRAPHIC

Customizability allows this product to reach a wide market. Currently, Customiced™'s target demographic includes high school and college students as well as professionals -- particularly those who use a computer regularly in their job. Gamers are a target segment as well. Many students rely heavily on personal computers for homework, and while children may certainly enjoy customizing their own mouse, we believe the investment is better-suited for older students, such as those in high school and college, whose hands are less likely to continue to grow significantly. Further, professionals often enjoy adding personal touches to their work equipment and would benefit from the comfort that a tailored mouse could bring to their hands. In addition, CAD professionals and gamers will rejoice. Their dedicated hours of computer interaction can now be further augmented with our mouse. Finally, we will initially target professionals as they are unlikely to share their mouse with others often (unlike family computers or those in a shared office), making the personalization perfect for them. As these groups use their mice in public, Customiced™ is likely to gain interest from peers and colleagues, increasing future sales.

## DESIGN FOR ENVIRONMENT

Customiced™ will be using recycled plastics and metal for manufacturing. Online direct retail with the factory will also reduce waste and carbon footprint. Upon final disposal of the product, the materials can be recycled. We encourage consumers to send the product for recycling once the product has served its useful life.

## PROTOTYPE AND PATENTABILITY

To our knowledge, there is no existing computer mouse customized to users' hands in the market. A utility patent will be suitable to patent our customization and manufacturing process to produce a unique mouse for each customer within reasonable cost. The patent will include a front to back process from taking hand impression to 3D print and assembly.

## STARTUP COSTS

A startup cost of $350,000 will offer means to produce 29,000 units of Customiced™ within five years. The net value of the company will be $723,813 within this timeframe. The start up cost includes one year of further prototyping and design to refine our current processes in order to begin full production in year two.

*IPD 515 · Chunan Liu, Tierra Sharae, Leon Xu*

Customice

# the future is Customiced.™


your hands are unique — why isn't your mouse? Customiced is a mouse created by you *for* you. unlike traditional mice, Customiced fits your hand's size, shape, grip preference, comfort, and style.


## how it works

1. place your order online.

2. receive impression kit and complete at home.

3. mail impression kit to our studio.

4. your hand model is extracted and refined.

5. your mouse is ready only after your final consultation.

6. your mouse is printed and post-processed to perfection.

7. receive your **Customiced**!

# Cost Estimator (Bill of Materials)

YOU ENTER INFORMATION ONLY IN THE SHADED CELLS. ADD, DELETE and EDIT ROWS AS NEEDED

These estimates are for the production-intent version of the product AS DESIGNED, not for the way you make your prototype.

Values for example are entered below. You enter your own values.

| Catalog Components (used exactly as purchased; otherwise enter under "c | Small-Quantity Retail Price $/unit | Qty per Unit | Component Cost | |
|---|---|---|---|---|
| Screw | 0.018 | 3 | 0.053 | |
| Battery holder (includes wire) | 0.700 | 1 | 0.700 | |
| Scroll Wheel | 0.200 | 1 | 0.200 | |
| USB receiver | 1.300 | 1 | 1.300 | |
| **Total catalog component costs** | | | | 2.253 |

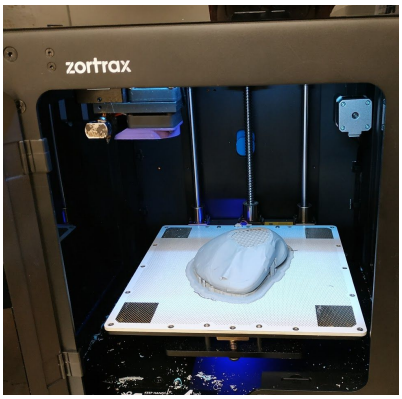
| Custom Components | Material | Mass (kg) | Material Cost ($/kg) | | Raw Material Cost | |
|---|---|---|---|---|---|---|
| Mouse Cover - Top (3D Printed to Hand), | ABS | **0.050** | 3.00 | 1 | 0.150 | |
| Mouse Cover - Middle, | ABS | **0.030** | 3.00 | 1 | 0.090 | |
| Mouse Base, | ABS | **0.025** | 3.00 | 1 | 0.075 | |
| Battery Cover, | ABS | **0.002** | 3.00 | 1 | 0.006 | |
| On/Off Switch, | ABS | **0.001** | 3.00 | 1 | 0.003 | |
| Optical Reflector, | Polycarbonate | **0.002** | 5.00 | 1 | 0.010 | |
| Optical mouse PCB (Printed Circuit Board) | | **0.014** | 20.00 | 1 | 0.280 | |
| **Total raw material costs for custom components** | | | | | | 0.614 |
| **Processing costs for custom components (e.g., injection molding)** | | | | | | 20.768 |
| **Number of units (in box or package) that will fit in a shipping container (8 x 8 x 40 ft)** - enter calculations on | | | | | 94174 | |
| freight cost | | | | | | 0.085 |
| **Total number of parts** | | 13 | | | | |
| number of unique custom components | | 7 | | | | |
| number of unique catalog components | | 4 | | | | |
| **Labor costs (driven by number of parts)** | | | | | | 0.130 |

| Overhead Costs | |
|---|---|
| Custom parts | 0.480 |
| Catalog parts | 0.080 |

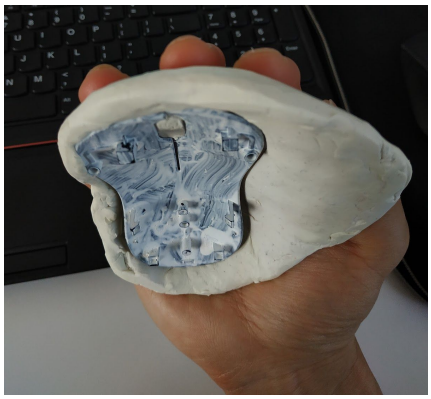
| | |
|---|---|
| COST/UNIT | $24.33 |
| Profit Margin | 0.65 |
| Distributor Margin | 0.00 |
| Retailer Margin | 0.00 |
| Retail selling Price | $69.99 |

| Cost Drivers (DON'T CHANGE THESE) | | |
|---|---|---|
| Ratio of cost to single-unit retail price | 0.33 | |
| Ratio of processing cost to raw material cost for custom cor | 1.25 | |
| Labor cost per part | 0.010 | $/part |
| Overhead costs - custom parts | 0.08 | $/custom part # |
| Overhead costs - catalog parts | 0.02 | $/catalog part # |
| Cost of shipping container | 8000 | $/container |

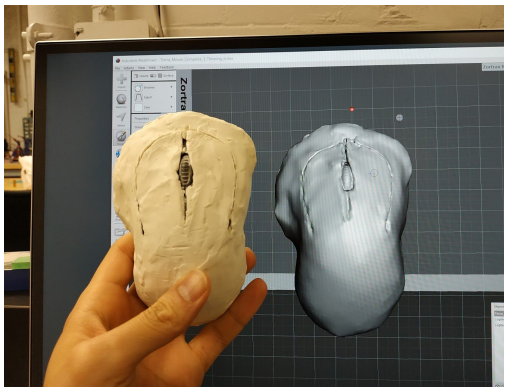
Prototype Photos (Chronological) - 1st Stage: Initial Technology Evaluation

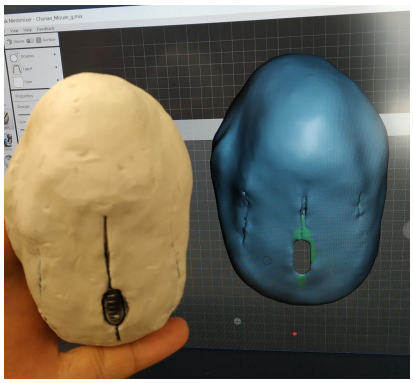


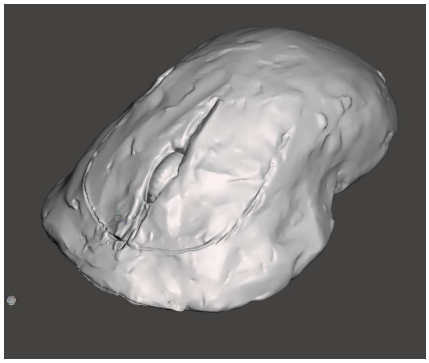

Prototype Photos (Chronological, continued) - 2nd Stage: Cover/Chassis Interface Establishment

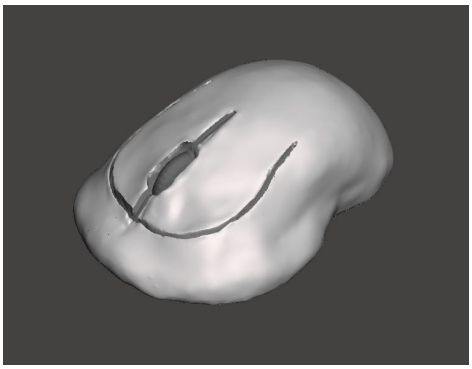


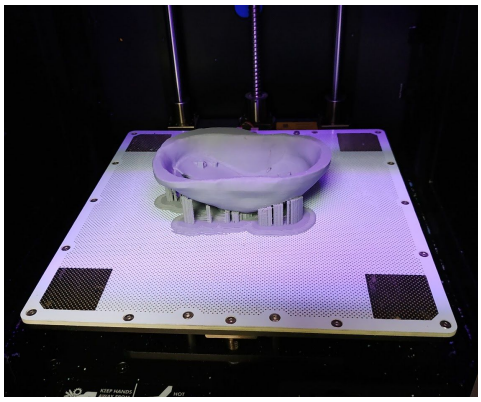

Prototype Photos (Chronological, continued) - 3rd Stage: Designing and Making Each Mouse

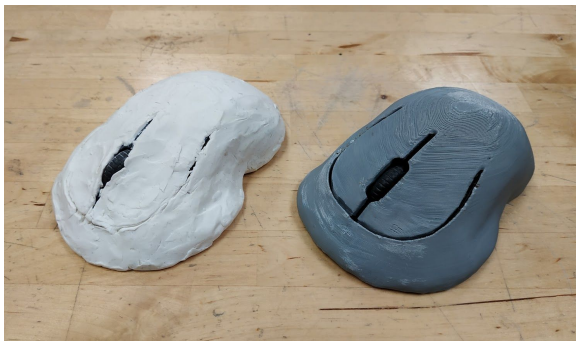


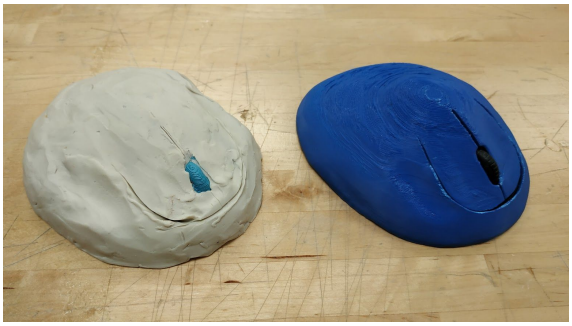




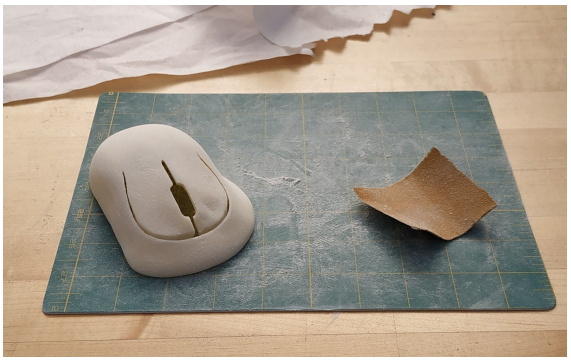


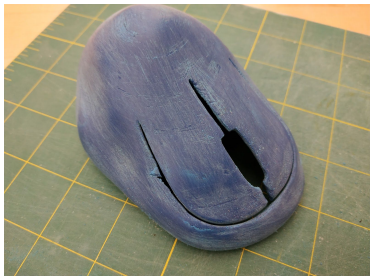


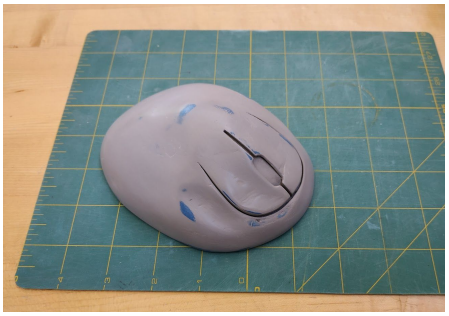


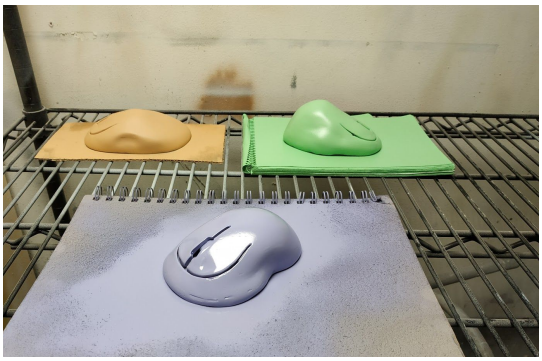


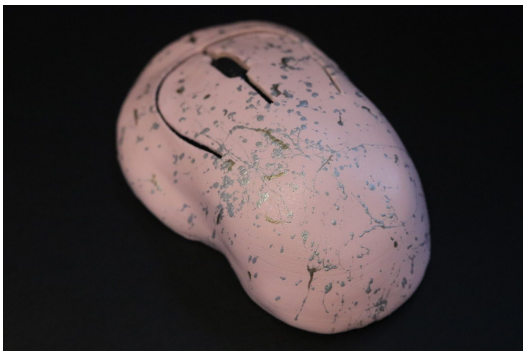
Prototype Photos (Chronological, continued) - 4th Stage: Elbow Grease









Prototype Photos (Chronological, continued) - 5th Stage: Final Prototypes

Rendered/Analytical Prototypes

Physical Prototypes