



Customized Computer Mouse

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Customer Needs



10 interviewees

Working professionals use mouse 7 hours on average 5 days a week



User Needs

The mouse is comfortable to use.

- !**The mouse minimizes tension on wrist
- !***The mouse avoids causing hand pain
- **The mouse helps maintain a natural forearm posture

- *The mouse prevents shoulder pain

The mouse is customized to user's hand

- !***The mouse fits various hand sizes
- **The mouse accommodates both right hand and left hand
- **The mouse needs to feel solid in hand
- *The mouse can be used interchangeably in both hands

- *The mouse can act as a drawing pen
- *The mouse can be squeezed
- ***The mouse has buttons that are easy to press
- ***The mouse has good precision
- **The mouse takes minimal space
- !***The mouse needs to be wireless

Interview methodology:

10 interviewees

In-person interviews, questionnaires

- 1) Are you satisfied with your mouse right now?
- 2) Is your mouse comfortable to use?
- 3) What improvement do you want to your computer mouse?

Competitive Market Matrix



Concept Selection

(reference) Classic	Concept 	Concept 	Concept 	Concept 
ZhiZhu® Wireless Mouse	Flat Mouse	Vertical Mouse		Trackball Mouse

Selection Criteria	Weight	Rating	Wtd	Rating	Wtd	Rating	Notes	Wtd	Rating	Notes	Wtd
Comfort	26%	2	0.52	4	1.05	5		1.31	5		1.31
Aesthetically pleasing	21%	2	0.43	4	0.86	2		0.43	4		0.86
Durability	19%	2	0.38	5	0.95	5		0.95	4		0.76
Low manufacturing cost	12%	5	0.60	4	0.48	3		0.36	3		0.36
Traditional usability	5%	5	0.24	5	0.24	4	slight learning curve	0.19	3	moderate learning curve	0.14
Accuracy/precision	17%	3	0.50	3	0.50	3		0.50	3		0.50
	100%										
Total Score		2.67		4.07		3.74			3.93		
Rank		4		1		3			2		
Continue?		No		Yes		No			No		

Concept Mockup - Clay Modeling



Concept Mockup - Clay Modeling

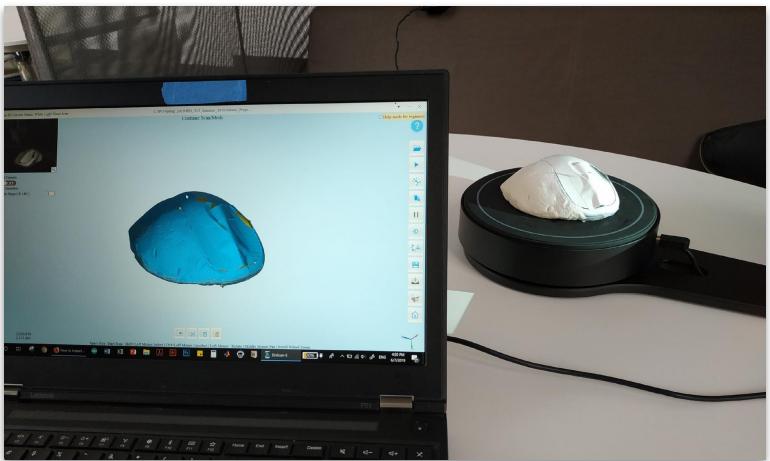
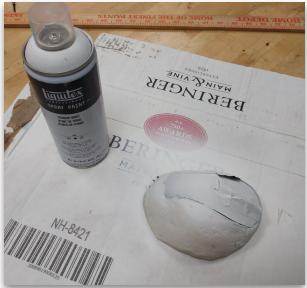


Mouse Sculpting:
<https://youtu.be/6lpkkfbxYRc>

Mouse Sizing:
<https://youtu.be/v3p4nh1Rd7I>



Concept Mockup - 3D Scanning

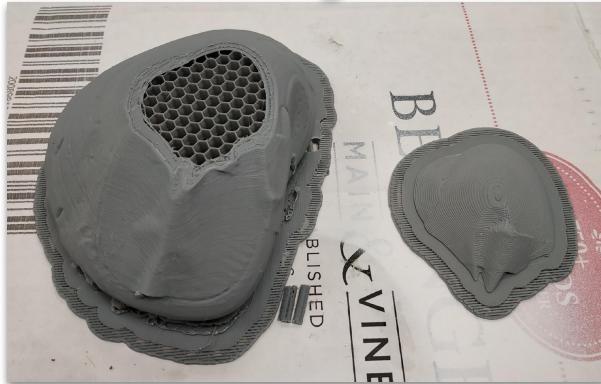
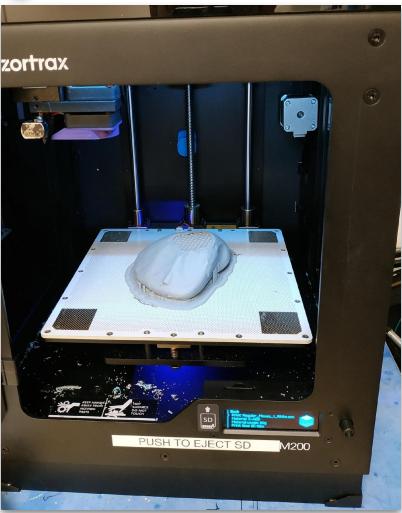
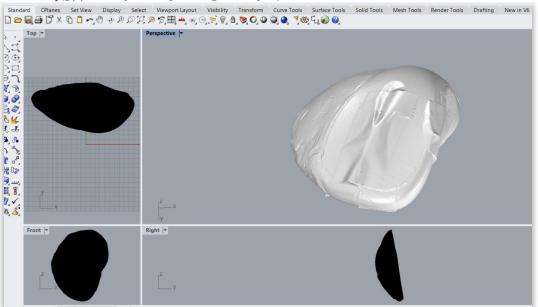


3D Scanning - Desktop Scanner:
<https://youtu.be/JtSv7ZQK54o>

3D Scanning - Handheld Scanner:
<https://youtu.be/np2N3u7ZsxU>



Concept Mockup - Digital Models and 3D Printing



Mouse Mockup 3D Print:
<https://youtu.be/y2PChLKJ1i8>