Dual Handheld and video otoscopy unit

Date: 10/04/2024

Client: Dr. Lara Tomich & Dr. Amy Nechelason

Advisor: Professor Paul Campagnola

Team:

Sam Tan — Leader stan68@wisc.edu

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Problem statement:

The current designs of handheld otoscopes for animal practice do not allow video transfer to a distant view compared to a video otoscope, which is practiced differently in simulations. The goal is to design a handheld otoscope with video capabilities to allow student-performed examinations to be visualized to the faculty for assessments.

Brief status update

 Material purchased (optical fibers and some LED, will update the expense chart later)

Difficulties / advice requests

N/A

Current design:

Old design

Materials and expenses

Item	Description	Manufac- turer	Mft Pt#	Vendo r	Vendor Cat#	Date	#	Cost Each	Total	Link
Electrical Com	ponent				-					
Camera Comp	onents									-
MakerSpace H	lardwares + 3D Prir	nts								
Current Total								Total		

Major team goals for the next week

1. Material testing and refinement of design, presentation

Next week's individual goals

- Sam
 - o Preparation of preliminary report
- Aaron
 - 0
- Bobby
 - o Test fiber optic design
 - o Research on colliminator options
- Andy
 - o Preparation for preliminary report
 - o More camera research

Timeline

Task	Se	ptem	ber	oer October					November					December	
rusit	13	20	27	4	11	18	25	1	8	15	22	25	6	13	
Project R&D	Х	Х	Х												
Empathize															

Background	Х								
Prototyping									
Testings									
Deliverables									
Progress Reports	Χ	Χ	Χ	Χ					
PDS		Х	Х	Х					
Prelim presentation				Х					
Final Poster									
Meetings									
Client									
Advisor	Х	Х	Х	Х					
Website	Х								
Update	Х	Χ	Х	Χ					

Filled boxes = projected timeline **X** = task was worked on or completed

Previous week's goals and accomplishments

- Sam previous goal
 - o Electronic component research, re-design of speculum.
- Bobby previous goal
 - o Research lighting options
 - o Contacted ThorLab for informations
- Aaron previous goal
 - o Researched otoscopy and background of design
- Andy previous goal

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- Team previous goal 6
 - o None

Activities

Name	Date	Activity	Time (h)	Week Total (h)	Sem. Total (h)
Sam	10/2/24	Optical fibers research	1	1	3.5
Bobby	10/6/24	Material research	2	2	4.5
Aaron					2

Andy			
Anay			