Dual Handheld and video otoscopy unit

Date: 10/18/2024

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

Materials order

Difficulties / advice requests

N/A

Current design:

Optical Fiber design

Materials and expenses

Item	Description	Manufac- turer	Mft Pt#	Vendo r	Vendor Cat#	Date	#	Cost Each	Total	Link	
Electrical Component											
Camera Comp	onents		-								
MakerSpace H	ardwares + 3D Prin	its									
Current Total								Total			

Major team goals for the next week

1. Research and material ordering

Next week's individual goals

- Sam
 - Testing components
- Aaron
 - 0
- Bobby
 - o Test if the optic fiber can be attached to the microscope without additional lighting
- Andy
 - $\circ\quad$ Purchasing microscope and N.A. lens research. Testing lenses.

Timeline

Task	September		October				November					December		
TOOK	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	Х	Х	Х	Χ	Х					
PDS		Χ	Χ	Χ	Χ					
Prelim presentation				Χ						
Final Poster										
Meetings										
Client										
Advisor	X	X	Х	Х	X					
Website	Х									
Update	Х	Х	Х	Х	Х					

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

Previous week's goals and accomplishments

- Sam previous goal
 - o Camera options
- Bobby previous goal
 - report
- Aaron previous goal

0

- Andy previous goal
 - o Lens research.
- Team previous goal 6
 - o None

Activities

Name	Date	Activity	Time (h)	Week Total (h)	Sem. Total (h)
Sam		Design, testing	2	2	7.5
Bobby		Design, testing	2	2	6.5
Aaron					2
Andy					