Dual Handheld and video otoscopy unit

Date: 10/11/2024

Client: Dr. Lara Tomich & Dr. Amy Nechelason

Advisor: Professor Paul Campagnola

Team:

Sam Tan — Leader <u>stan68@wisc.edu</u>

Aaron Marattil — Communicator marattil@wisc.edu

Haoming (Bobby) Fang — BWIG <u>hfang45@wisc.edu</u>

Andy Slayton — BPAG <u>aslayton@wisc.edu</u>

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

Optical fiber arrived and evaluation of materials.

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	ardwares + 3D Prin	ts								
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, start thinking about optical fiber design fabrication
- Aaron
 - 0
- Bobby
 - o preliminary report preparation
 - Design for without additional lighting
- Andy
 - Preliminary Report

Timeline

Task	Se	ptem	ber		Oct	ober		November				December		
TOOK	13	20	27	4	11	18	25	1	8	15	22	25	6	13
Project R&D	Χ	Х	Χ											
Empathize														

Background	Х								
Prototyping									
Testings									
Deliverables									
Progress Reports	Χ	Х	Χ	Χ					
PDS		Х	Х	Х					
Prelim presentation				Х					
Final Poster									
Meetings									
Client									
Advisor	Χ	Х	Х	Х					
Website	Х								
Update	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 Materials order and method validation
- Bobby previous goal
 - testing
- Aaron previous goal

0

- Andy previous goal
 - o Found potential wireless camera candidate
- Team previous goal 6
 - o None

Activities

Name	Date	Activity	Time (h)	Week Total (h)	Sem. Total (h)
Sam		Design, report	2	2	5.5
Bobby		Design, report	2	2	6.5
Aaron					2
Andy					