Dual Handheld and video otoscopy unit

Date: 11/15/2024

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 orders and fabrication

Difficulties / advice requests

N/A

Current design:

Optical Fiber design

Materials and expenses

To be updated once some order receipt and amazon information is finalized on our end.

Item	Description	Manufac- turer	Mft Pt#	Vendo r	Vendor Cat#	Date	l#	Cost Each	Total	Link
Electrical Com	ponent				-			-		-
Camera Compo	onents									
MakerSpace H	ardwares + 3D Print	:s								
Current Total								Total		

Major team goals for the next week

1. 3d printing and evaluation

Next week's individual goals

- Sam
 - 3D printing
- Aaron
 - 0
- Bobby
 - o Research on other camera options
 - Focal length testing
- Andy
 - o Finalize test methods for optical distortion and illumination.

Timeline

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

Empathize												
Background	Х											
Prototyping												
Testings												
Deliverables												
Progress Reports	Χ	Х	Х	Χ	Χ	Х	Х	Х	Χ	Х		
PDS		Х	Х	Χ	Χ	Х	Х	Х	Х	Х		
Prelim presentation				Х								
Final Poster												
Meetings												
Client												
Advisor	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х		
Website	Х											
Update	Х	Х	Х	Х	Х	Χ	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 3D modeling of the first prototype and find dimensions
- Bobby previous goal
 - o Tested the focal length
- Aaron previous goal

0

Andy previous goal

C

Team previous goal

0

Activities

Name	Date	Activity	Time (h)	Week Total (h)	Sem. Total (h)
Sam		3D modelings, dimensions measuring	2		16
Bobby		Focal length testings	2		14.5
Aaron					
Andy					