

# Microscope Slide Scanner

Date: 9/27/24

Client: Teri Stewart

Advisor: Dr. James Trevathan

Team: Lia Lejonvarn (Team Leader)

Amanda Kothe (Communicator and BSAC)

Hamad AIDhaheeri (BPAG)

Xavier Snider (BWIG)

## Problem statement

The team has been tasked with finding a more efficient way to scan microscope slides using digital scanning. The client's department already has a scanner but it takes a while to scan one slide and the images are not of the best quality. Therefore, we must find a way to enhance the user quality of their digital scanner as well as the images themselves. The department has also asked our team to create software capable of housing the images. This project will benefit multiple labs who send in slides for processing including the primate lab and SMPH.

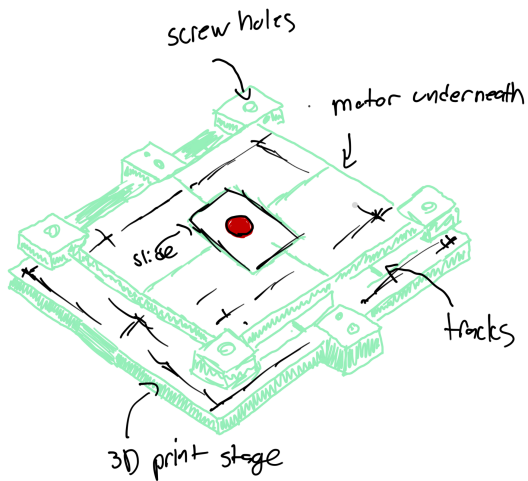
## Brief status update

The team has completed their preliminary presentation complete with preliminary and final designs as well as diagrams and flowcharts.

## Difficulties / advice requests

The team is having difficulties deciding how to proceed with final design. This can be solved by looking at other designs and researching the topic further.

## Current design: Slide Glider



## Materials and expenses

Item	Description	Manufacturer	Mft Pt#	Vendor	Vendor Cat#	Date	#	Cost Each	Total	Link
<b>Category 1</b>										
									\$0.00	
									\$0.00	
<b>Category 2</b>										
									\$0.00	
									\$0.00	
								<b>TOTAL:</b>	<b>\$0.00</b>	

## Major team goals for the next week

1. Present preliminary report
2. Start thinking about materials needed
3. Fill our feedback fruits

## Next week's individual goals

- Amanda:
  - Start research on similar designs (including past BME projects)
  - Continue communicating with client and advisor

- Start determining what we will need for our design
- Lia:
  - Start making a materials list for the final design
  - Continue to research similar designs
- Xavier:
  - Research designs for motorized stage
  - Understand feasibility or replacing a stage
- Hamad:
  - Explore the old microscope slide scanner
  - Research more regarding how to implement the slide glider
  - Determine an cost estimate for the slide glider

## Timeline

Task	Sep			Oct				Nov				Dec		
	13	20	27	4	11	18	25	1	8	15	22	29	6	11
<b>Project R&amp;D</b>														
Empathize														
Background...														
Prototyping														
Testings														
<b>Deliverables</b>														
Progress Reports	X	X	X	X										
Prelim presentation				X										
Final Poster														
<b>Meetings</b>														
Client	X	X		X										
Advisor	X	X	X	X										
<b>Website</b>														
Update	X	X	X	X										

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

## Previous week's goals and accomplishments

- Amanda:
  - Continue doing more research on deconvolution
  - Work on the preliminary presentation
- Lia:
  - Start working on the preliminary presentation
  - Continue researching deconvolution

- Practice presentation
- Xavier:
  - Begin work on prelim presentation
  - Practice Prelim
- Hamad:
  - Working on preliminary presentation
  - Researching more regarding the deconvolution design
  - Research more regarding the microscope slide scanner's imaging criteria

## ***Activities***

<b>Name</b>	<b>Date</b>	<b>Activity</b>	<b>Time (h)</b>	<b>Week Total (h)</b>	<b>Sem. Total (h)</b>
Amanda	9/26/2024	Meeting with client	1	1	5
Lia	9/26/2024	Meeting with client	1	1	5
Xavier	9/26/2024	Meeting with client	1	1	5
Hamad	9/26/2024	Meeting with client	1	1	4