

PRINT-A-PUNCH

Date: September 6, 2024 to September 12, 2024

Client: Prof. Colleen Witzenburg (witzenburg@wisc.edu) and Mr. Daniel Pearce (dppearce@wisc.edu)

Advisor: Dr. Megan Settell - settell@wisc.edu

Daniel Pies - dpies@wisc.edu - Team Leader

Colin Bailey - cgbailey@wisc.edu - Communicator

Kendra Ohde - ohde@wisc.edu - BPAG

Emmett Jones - eajones8@wisc.edu - BWIG

Cole Miller - ctmiller8@wisc.edu - BSAC

Problem Statement

In order to carry out effective biaxial testing of tissue, a precise, symmetric sample must be cut. A cruciform shaped sample allows this testing to be performed however there are not currently any products that can uniformly cut this type of sample. The goal of this project is to generate a method to use factory produced razor blades to cut small samples of tissue so biaxial tensile testing is effective while keeping the product simple and inexpensive.

Brief Status Update

This week was the team's first week assigned on this project. The team met with the client to discuss project details, met with the advisor, and planned a team meeting as well. All of the team members created questions for the introductory meeting with Prof. Witzenburg and Mr. Pearce. In the coming week the team will begin researching and working on the PDS.

Difficulties / Advice Requests

- The team had difficulty finding a time when all 5 members were available to meet. Using a shared calendar system, the team was able to find a time that aligned with the client's schedule so that 4 of the 5 team members could attend.

Current Design

No prototyping or designing has been done at this phase of the project.

Materials and expenses

Item	Description	Manufac-turer	Mft Pt#	Vendor	Vendor Cat#	Date	#	Cost Each	Total	Link
Category 1										
									\$0.00	

									\$0.00	
Category 2										
									\$0.00	
									\$0.00	
								TOTAL:	\$0.00	

Major Team Goals For The Next Week

- Begin basic background research
- Begin working on PDS

Next Week's Individual Goals

- Daniel Pies
 - Begin research on relevant topics
 - Materials
 - Tissue thickness for artery samples
 - Current practices
 - Continue organizing and adding files to shared drive
 - Brainstorm potential designs for initial prototype
- Colin Bailey
 - Brainstorm potential initial ideas
 - Conduct research on competing designs
 - Get information regarding current laboratory practices from Mr. Pearce
- Cole Miller
 - Research established literature and previous designs for similar projects
 - Familiarize myself with desired outcome for the product
 - Brainstorm ideas for first prototypes/ angles to explore our development
- Emmett Jones
 - Update website with Progress Report and other relevant information
 - Begin research
 - Tissue Mechanics
 - Cruciform shaped samples usage
 - Begin brainstorming preliminary ideas
- Kendra Ohde
 - Continue research
 - Materials
 - Ways to prevent asymmetry by reducing the strain on the tissue
 - Current products used as well as new technologies being developed
 - Look at the finances for the project and create a rough list of things that are necessary for the project
 - Brainstorm potential design ideas

Timeline

Task	September				October				November					December	
	6	13	20	27	4	11	18	25	1	8	15	22	29	6	13
Project R&D															
Empathize															
Background...															
Prototyping															
Testings															
Deliverables															
Progress Reports		X													
Prelim Presentation															
Final Poster															
Meetings															
Client		X													
Advisor	X	X													
Website															
Update	X	X													

Filled boxes = projected timeline

X = task was worked on or completed

Previous Week's Goals and Accomplishments

- Daniel Pies -
 - Create shared drive and notebook for all team files
 - Create and work on progress report
 - Plan and attend preliminary meeting with client
 - Begin preliminary research to compile question list for client
- Colin Bailey -
 - Contacted client and set up first meeting
 - Began preliminary research
 - Met with team to plan for client meeting
 - Met with client
- Cole Miller -
 - Attend BSAC meeting to obtain advice from peers
 - Attended meeting with clients
 - Clarified project goals/restrictions with client
- Emmett Jones -
 - Set up website with our current team info
 - Attend meeting with client
 - Research current similar designs
- Kendra Ohde -

- Began Preliminary Research
- Created the BPAG spreadsheet and put it in the drive
- Team's Goal -
 - Attend preliminary meeting client
 - Brainstorm questions for meeting
 - Begin progress report

Activities

Name	Date	Activity	Time (h)	Week Total (h)	Sem. Total (h)
Team	9/6-9/13	- Client Meeting - Advisor Meeting	-1 -1		
Daniel Pies	9/6-9/13	- Created LabArchives notebook - Brainstorm questions for client - Attend client meeting - Created progress report	-.5 -.5 -.5 -1	2.5	2.5
Colin Bailey	9/6-9/13	- Contacted client and planned first meeting - Determined weekly availability of team - Client meeting prep Client meeting	2	2	2
Emmett Jones	9/6-9/13	- Posted Members, Team Picture, and Progress Report 1 on website - Attend client meeting - Summarize client meeting notes	2	2	2
Cole Miller	9/6-9/13	-Researched previous approaches to similar projects -Attend client meeting -Attend BSAC meeting	-1 -.5 -.5	2	2
Kendra Ohde	9/6-9/13	-Researched information about our project: Type of materials used, favorability of the crucifix shape, common errors with asymmetric samples currently -Created BPAG spreadsheet	2	2	2
			Total	10.5	10.5

