

BME Design: Progress reports

Title: Microvascular Channel Bioprinter shutoff valve

Date: 11 September 2025

Client: Dr. David Dean

Advisor: Dr. Paul Campagnola

Team:

- [Dominique Gooden](#) - *Team Leader*
- [Steph Vigmond](#) - *Communicator*
- [Mahathi Karthikeyan](#) - *BSAC*
- [Sophia Speece](#) - *BWIG*
- [Ana Toscano](#) - *BPAG*

Problem statement

Facilitate rapid switching between bioprinter input devices so that microchannels have rapidly decreasing diameter. Also come up with a shutoff mechanism to prevent excess fluid flow from valves.

Brief status update

Team met for the first time with Advisor on Friday, 9/5

Team met for the first time as a team Friday, 9/5

Team met for their weekly meeting on Wednesday, 9/10

Team met for the first time with Client Thursday 9/11

Difficulties / advice requests

N/A

Current design

In progress.

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

1. PDS Final Draft
2. Come up with time to meet with client on a weekly basis

Next week's individual goals

- Dominique
 - Begin research for lab notebook
 - Brainstorm design ideas for shutting on/off and automating valves
- Ana
 - Update the project description
 - Continue preliminary research on competing designs
 - Continue research on Product Design Specification
- Sophie
 - Continue preliminary research
 - Review notes from Team's meeting with client to guide research and inform PDS document
 - Upload Progress report and other applicable documents to the Team website
- Steph
 - Continue preliminary research (focus on what client told us in meeting)
 - Work on PDS
 - Research into murphy's law (to do with Arteries)
- Mahathi
 - Start background research on the electronics and materials related to the project
 - Get a regular client meeting scheduled

Timeline

Task	Aug	September				October					November				Dec	
	26	4	11	18	25	2	9	16	23	30	6	13	20	27	4	11
Project R&D																
Empathize																

Background...																
Prototyping																
Testings																
Deliverables																
Progress Reports																
Prelim presentation																
Final Poster																
Meetings																
Client			X													
Advisor		X														
Website																
Update		X														

Filled boxes = projected timeline

X = task was worked on or completed

Previous week's goals and accomplishments

- Ana
 - Updated the team notebook with information about the project, organized the google folder
- Dominique
 - Purchased team notebook, created relevant folders on drive, edited pds and progress report templates. Met with team on 9/5, 9/10 and 9/11
- Steph
 - Contacted client and advisor, began preliminary research
- Sophia Speece
 - Met with team to complete progress report, identify questions to ask the client, and start draft of PDS
- Mahathi
 - Met with client and team to get a background on the project and ask questions. Roles were assigned

Activities

Name	Date	Activity	Time (h)	Week Total (h)	Sem. Total (h)
Mahathi	9/11 9/6	met with client Started research			
Steph	9/5 9/08 & 9/09	Contacted client and advisor about meeting times Preliminary research in notebook	1 2	3	3
Dominique	9/5 - 9/6 9/10	Purchased team notebook, created relevant folders, edited pds and progress report templates Met with team to review questions to ask client + plan for the week	2 1	2 1	

BME Design: 200, 300, 301, 400 and 402

Sophie	9/10	Team Meeting	1	1	1
Ana	09/10/2025	Initiated preliminary research on competing designs and brainstormed questions for the client meeting	3	3	3