

Aligna-Painless IUD placement

Progress Report 3

9/17/2026 - 9/24/2026

Team:

Kendra Ohde (ohde@wisc.edu)	Team Leader
Carolyn Randolph (crrandolph@wisc.edu)	Communicator
Ashmita Bhowmik (bhowmik3@wisc.edu)	BSAC
Francesca Angiulli (fangiulli@wisc.edu)	BPAG
Alexis DePuydt (adepuydt@wisc.edu)	BWIG

Advisor:

Prof. Darilis Suarez-Gonzalez (dsuarez@wisc.edu)

Client:

Ms. Reshma Kandipati (kandipati@wisc.edu)

Problem statement

Intrauterine devices (IUDs) are highly effective in preventing pregnancy with no significant impact on fertility post-removal. They serve as a relatively low maintenance form of birth control that lasts up to 10 years. Despite the implementation of pain management techniques such as NSAIDs, the insertion process remains moderately to severely painful for more than half of patients. Our team aims to design a device that will prioritize patient comfort during the IUD insertion process while maintaining the efficacy of the procedure.

Brief status update

This past week the team compared and scored initial designs with a design matrix. We continue to develop a budget estimate.

Previous Week Individual Goals and Accomplishments

- Kendra Ohde
 - Generate design ideas for design matrix
 - Continue research on IUD placement procedure and alternatives to tenaculum use
- Carolyn Randolph
 - Add designs for design matrix
 - Assist in initial budget development and application for funds
- Ashmita Bhowmik
 - Brainstorm prototype designs for design matrix and meet with team/client to finalize design
 - Secure budget and meet with clients to finalize what they want in the final prototype
- Francesca Angiulli
 - Brainstorm designs for design matrix
 - Continue researching competing designs for IUD insertion
- Alexis DePuydt
 - Come up with design ideas for the design matrix
 - Continue research in competing devices and physiology associated in IUD insertion

Activities

Name	Date	Activity	Time (h)	Week Total (h)	Sem. Total (h)
Carolyn	9/18-24 9/20-24 9/23	Design Matrix Materials research and budget Editing design sketch	2 2.5 0.5	5	15
Ashmita	9/18-19 9/20-24 9/24	Developed Design Ideas + research fabrication Met with team + worked on Design Matrix Client Meeting	2.5 2 1	5.5	11
Kendra	9/19-9/24 9/19-9/22 9/24	Design creation and Design Matrix work Research for Design Client Meeting	3 hrs 1 hr 1 hr	5	10
Francesca	9/19-9/20 9/21 9/22 9/24	Researched and came up with a design to present for design matrix Did research on anatomy and other things to help inform my design idea Worked on Design Matrix Client Meeting	1.5 1.5 1 1	5	11
Alexis	9/19 9/24	Sketched Idea for Design Researched competing device	1 1	5	11

	9/22-23 9/24	Worked on the Design Matrix Client meeting	2 1		
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Major Team Goals For The Next Week

1. Engage in additional research
2. Continue communication with client
3. Begin brainstorming potential designs and work on the Design Matrix

Next Week's Individual Goals

- Kendra Ohde
 - Work on preliminary presentation slides
 - Determine best design based on client's feedback
- Carolyn Randolph
 - Develop preliminary presentation slides
 - Finalize application for funds
- Ashmita Bhowmik
 - Work on preliminary presentation
 - Meet with client to finalize design idea
 - Start brainstorming and developing fabrication protocols for finalized prototype
- Francesca Angiulli
 - More concretely establish/outline design idea from matrix for the upcoming assignment deadlines
 - Write a cost/budget proposal for our project
- Alexis DePuydt
 - Work on the preliminary presentation
 - Discuss design ideas and budget with the client
 - Research materials for prototyping

Difficulties / advice requests

N/A

Current design

Design Matrix: [link here to full document](#)

Criteria	Weight	CerviPump: CerviPump		Soundless Suction Assist: Soundless Suction Assist		Ectocerv Vacuum and Articusound Francesca's idea	
Safety - Visibility up to cervix, accuracy of deployment of IUD: perforation risk	25	3/5	15	3/5	15	4/5	20
Universality	20	3/5	12	2/5	8	5/5	20
Ease of Use	20	4/5	16	5/5	20	3/5	12
Feasibility-	15	3/5	9	5/5	15	2/5	6
Cost	10	3/5	6	4/5	8	5/5	10
Originality	10	2/5	4	3/5	6	4/5	8
Total	100	62		72		76	

Materials and expenses

Item	Description	Manufacturer	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

Timeline

Task	Week #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Project Selection		X														
Project Report		X														
Client Meeting			X													
PDS				X												
Design Matrix					X											
Prelim Presentation																
Prelim Deliverables																
Final Design																
Project Manufacturing																
Invention Disclosure Report																
Show and Tell																
Final Poster																
Final Deliverable																

Filled boxes = projected timeline

X = task was worked on or completed

Important Dates:

First PDS Draft Due: September 18th

Design Matrix Criteria and Design Ideas Due: September 25th

Preliminary Presentation: October 2nd

Preliminary Deliverables: October 7th

(Optional) Invention Disclosure Report: October 16th

Show and Tell: October 30th

Final Poster Presentations Due: December 4th

Final Deliverables Due: December 9th

Current References:

1)