

Aligna-Painless IUD placement

Progress Report 2

9/10/2026 - 9/17/2026

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)

Dr. Beth Martin (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

The main objective of this past week was to complete the initial product design specifications, this necessitated further research and fine-tuning of design requirements and goals.

Previous Week Individual Goals and Accomplishments

- Kendra Ohde
 - Use research and client specification to think about design ideas for materials and overall structure.
 - Complete PDS
- Carolyn Randolph
 - Developed customer and patient preferences within the product design specifications based upon input from the client and further literature review.
 - Referenced and noted relevant patents and competitive devices to inform the design process.
 - Sought out funding pathway
- Ashmita Bhowmik
 - Start on PDS, brainstorming project designs, develop design matrix, continue literature review, meet with client
 - Attend BSAC meeting
- Francesca Angiulli
 - Continue researching existing solutions, work towards comprehensive understanding of involved anatomy and this specific medical procedure
- Alexis DePuydt
 - Continue research on current methods and competing devices
 - Begin working on the PDS

Activities

Name	Date	Activity	Time (h)	Week Total (h)	Sem. Total (h)
Carolyn	9/12-14	Research into competitors, patient preferences and prejudices, and user needs	1.5	4	6
	9/15	Incorporated information into PDS	2		
	9/16-17	Reviewed and edited PDS	0.5		
Ashmita	9/11	Met with team to decide next steps for obtaining materials for testing and research	1	3.5	5.5
	9/15-17	Researched tenaculum replacements/competition, IUD size, and insertion environment for PDS	2.5		
Kendra	9/14-9/17	Worked on PDS	1.5 hrs	3	5
	9/15-9/16	Researched statistics on IUD as a contraceptive device	1.5 hrs		
Francesca	9/12-9/15	Research material options for reusable and nonreusable prototypes	1.5	4	6

	9/15 9/12-9/15	Coordinate Meeting with gynecologist Worked on PDS	0.5 2		
Alexis	9/14 9/15	Research regarding uterine sounding, IUD placement metrics Worked on PDS	2 2	4	6

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
 - 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

Difficulties / advice requests

N/A

Current design

N/A

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																
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)