

# Title: Progress Report 8

Date: 03/20/2025

Client: Dr. Andrew Ross

Advisor: Dr. Megan McClean

Team:

Student 1: Ana Toscano

Student 2: Rini Anand

Student 3: Gabriela Cecon

Student 4: Sofia Yeates-Delahoz

**Problem statement:**

Design and develop a prototype that securely supports, stabilizes, and precisely maneuvers needles during, image-guided minimally invasive radiology procedures to enhance ergonomics, reduce operator fatigue, and improve accuracy and patient outcomes

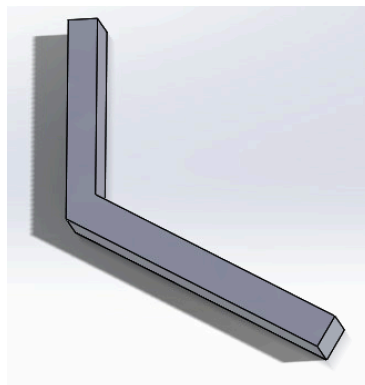
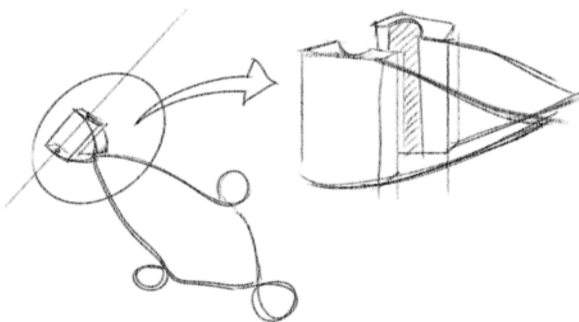
## Brief status update

A preliminary CAD model was developed with SolidWorks and printed at UW-Madison Makerspace. Then a test tube holder was cut to fit. After that, a hole was drilled into the plastic pieces and hot glued onto the metal. Foam was also hot glued onto the end.

## Difficulties / advice requests

None to report.

## Current design



These images depict the current proposed design for the Needle Navigator device.



Prototyping							X	X							
Testing															
<b>Deliverables</b>															
Progress Reports	X	X	X	X	X	X	X	X							
Prelim presentation				X											
Final Poster															
<b>Meetings</b>															
Team	X	X	X	X	X	X	X	X							
Client		X			X		X								
Advisor	X	X	X	X	X	X	X	X							
<b>Website</b>															
Update	X	X	X	X	X	X	X	X							

## Materials and expenses

Item	Description	Manufacturer	Mft Pt#	Vendor	Vendor Cat#	Date	#	Cost Each	Total	Link
<b>Category 1</b>										
Needle Holder Jaws	3D-printed PLA needle holder jaws	UW-Madison Makerspace	N/A	N/A	N/A	03/19/2025	2	\$0.28	\$0.57	N/A
Test Tube Clamp	Labs Stoddard Test Tube Clamp, Stainless Steel with Finger Grips, 6" Length	SUCOHANS	SUCOHA NS-T BC-U nique -Identifier	N/A	N/A	03/19/2025	10	\$1.43	\$14.28	<a href="https://a.co/d/jC2k5td">https://a.co/d/jC2k5td</a>

TOTAL:        \$14.85