

BME Design: Progress reports

VET Stand: Adjustable bite block assembly for radiation therapy for pet

Date: October 8, 2026 - October 15, 2026

Client: Dr. James Sohn

Advisor: Prof. Randy Bartels

Team Members:

Norah Greer (njgreer2@wisc.edu) - Co-Leader

Cole Hwang (nahwang@wisc.edu) - Co-Leader

Zhien Luo (zluo244@wisc.edu) - Communicator

Bridget Jensen - (bcjensen2@wisc.edu) - BSAC

Ethan Abitz - (eabitz@wisc.edu) - BWIG

Isabel Hillwalker - (hillwalker@wisc.edu) - BPAG

Problem statement

Veterinary radiation oncology requires dogs and cats to undergo sedation during every treatment session. A common tool used to secure an anesthesia delivery hose and hold the animal's head still is a bite block, however, common bite blocks are cumbersome and lack adjustability. This project aims to create an adaptable bite block with a wide range of widths and heights, allowing technicians to precisely and repeatedly position the block for each patient over multiple treatment sessions.

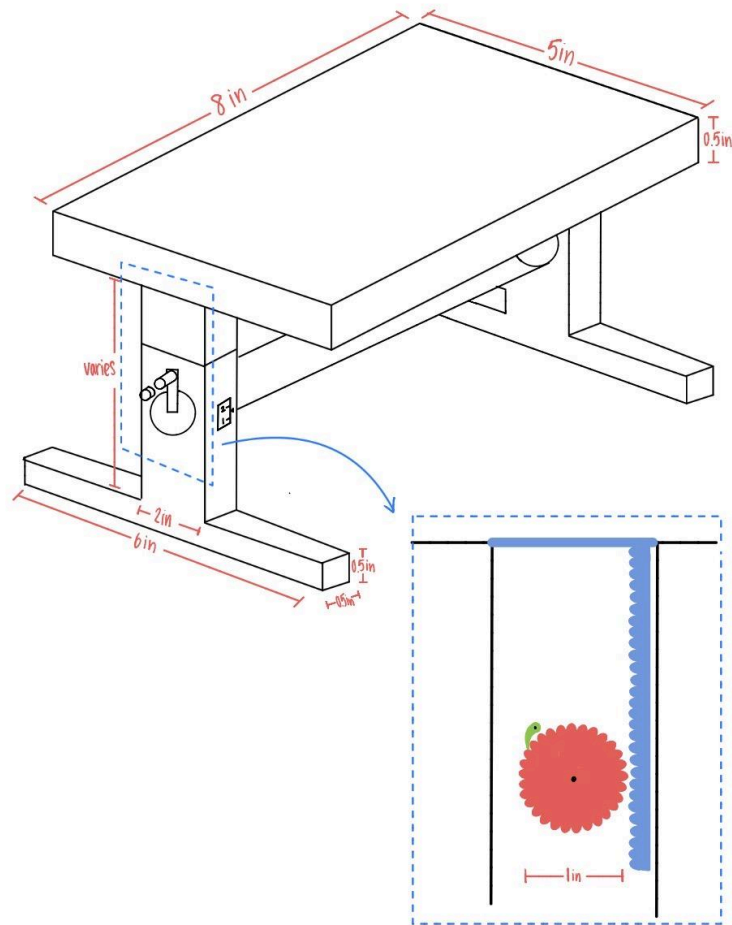
Brief status update

The team created a CAD assembly for the adjustable stand. In addition to the stand CAD, the team met to discuss bite block ideas and come up with criteria for a design matrix.

Difficulties / advice requests

None at this time

Current design



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	

Goals

Major team goals for the next week

1. Finalize Bite Block design
2. Finalize Stand Prototype
3. Purchase or Print Gears

Next week's individual goals

- Norah Greer
 - Adjust CAD model to accommodate new bite block design, print it.
- Cole Hwang
 - Continue calculating different stresses within the stand, work on design matrix for the bite block
- Zhien Luo
 - Assuming we're happy with our CAD at the moment, I'll be fabricating the product.
- Bridget Jensen
 - Start modeling the bite block and finishing that design
- Ethan Abitz
 - .Continue to work on bite block design, work on design matrix
- Isabel Hillwalker
 - .Work on design matrix, figure out gear components of stand vs bite block

Timeline

Task	Aug	Sep				Oct				Nov					Dec	
	31	7	14	21	28	5	12	19	26	2	9	16	23	30	3	10
Project R&D																
Empathize																
Background...																
Prototyping																
Testings																
Deliverables																
Progress Reports																
Prelim presentation																
Final Poster																
Meetings																
Client																
Advisor																
Website																
Update																

Filled boxes = projected timeline

X = task was worked on or completed

Detailed accomplishments

Previous week's goals and accomplishments

- Norah Greer
 - Begin CAD modelling of final design, try to create an initial prototype
- Cole Hwang
 - Begin working on the cad for design, start working on the preliminary report..
- Zhien Luo
 - Worked on CAD and created animation and a general model of product.
- Bridget Jensen
 - Work on the preliminary report and researching more standards
- Ethan Abitz
 - Start prototyping and help with testing
- Isabel Hillwalker
 - Start work on prelim report, research standards

Activities

Name	Date	Activity	Time (h)	Week Total (h)	Sem. Total (h)
Cole Hwang	10/12/26	Stand calculations	1.5	3	16
	10/13/26	Team meeting	1.5		
Norah Greer	10/12/26	Solidworks model of stand design	3	4.5	20
	10/13/26	Team meeting to discuss bite block design	1.5		
Ethan Abitz	10/11/26	Bite Block Design Brainstorm	2	5	19
	10/12/26	Gear Material Research	1		
	10/13/26	Team Meeting	2		
Zhien Luo	10/10/26	OnShape model of general VET stand	1	5	18
	10/10/26	Animate OnShape for demonstration	2		
	10/13/26	Group meeting	2		
Bridget Jensen	10/9/26	BSAC meeting	1	4	18
	10/10/26	Emailed vet school	0.5		
	10/11/26	Created google form for vet school	0.5		
	10/12/26	Created bite block designs	1		
	10/13/36	Team Meeting	1		
Isabel Hillwalker	10/10/26	Finish bite block design	1	5	18
	10/12/23	Research gears for stand	2		
	10/13/26	Team meeting	2		

