

Incubator for Infant Wildlife (Wildlife Incubator Team) BME 402

Client: Dr. Mark Stelford

Advisor: Dr. Walter Block

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Date: 2/23-2/29

Problem statement

Wildlife rehabilitation often includes caring for neonatal wildlife who are unable to control their own body temperature, thus the incubator must provide supplemental temperature control. Although private parties frequently contribute to wildlife rehabilitation efforts, they do not have enough financial resources to purchase an incubator. As such the wildlife incubator must be low-cost, durable, modular, easy to clean, and precise in temperature control. It is essential to create an incubator that is more accessible and accommodating for those interested and passionate about wildlife rehabilitation but may lack the financial resources to purchase components currently available in the market.

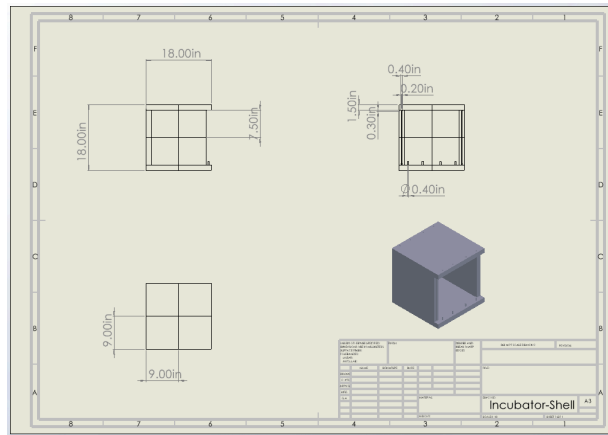
Brief status update

The team has been working on creating a journal draft that was submitted yesterday. This involved a literature search to find journal articles from similar spaces, and replicating their structure with information pertaining to our project.

Difficulties / advice requests

Getting the PID controller to help decrease oscillations. The code and control theory are proving to be challenging.

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	

Major team goals for the next week

1. Begin PID Testing
2. Complete laser cutting

Next week's individual goals

- Tanishka:
 - Generate test data from PID
- Loukia:
 - Assist with testing on exterior shell
- Sophia:
 - Begin testing on exterior shell

- Erwin:
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Timeline

Task	Jan	Feb				March					April				May	
	26	2	9	16	23	1	8	15	22	29	5	12	19	26	3	10
Project R&D																
Designing	X	X	X	X	X											
Prototyping																
Testing																
Feedback																
Deliverables																
Progress Reports	X	X	X	X	X											
Prelim presentation			X													
Final Poster																
Meetings																
Client																
Advisor	X	X	X	X												
Website																
Update	X	X	X	X												

Filled boxes = projected timeline

X = task was worked on or completed

Previous week's goals and accomplishments

- Team:
 - Completed first draft of journal and performed search for existing wildlife rehabilitation journals
- Tanishka:
 - Performed literature search for a journal that would work for our topic
 - Worked on draft for the journal with team
- Loukia:
 - Finished journal draft and literature reviewed for the journal;/
- Sophia:
 - Finished journal draft
 - Phase 2 of exterior shell prototyping completed
- Erwin:
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Activities

Name	Date	Activity	Time (h)	Week Total (h)	Sem. Total (h)
Tanishka Sheth	2/23/2/29	Wrote a journal draft and learned about existing journals in the space	3	3	10.5
Loukia Agoudemos	2/16-2/22	Journal draft and performed literature review	3	3	9
Erwin Cruz	2/16-2/22	Worked with PID library and sent emails to outreach location	1.5	1.5	6
Sophia Finn	2/16-2/22	Met with advisor, research Arduino PID libraries, updated website	2	2	10.5