

Incubator for Infant Wildlife (Wildlife Incubator Team) BME 402

Client: Dr. Mark Stelford

Advisor: Dr. Walter Block

Team: Tanishka Sheth (Leader + Communicator) - tsheth@wisc.edu

Loukia Agoudemos (BPAC) - lagoudemos@wisc.edu

Sophia Finn (BWIG) - svfinn@wisc.edu

Erwin Cruz (BPAG) - ecruz9@wisc.edu

Date: 2/1-2/8

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.

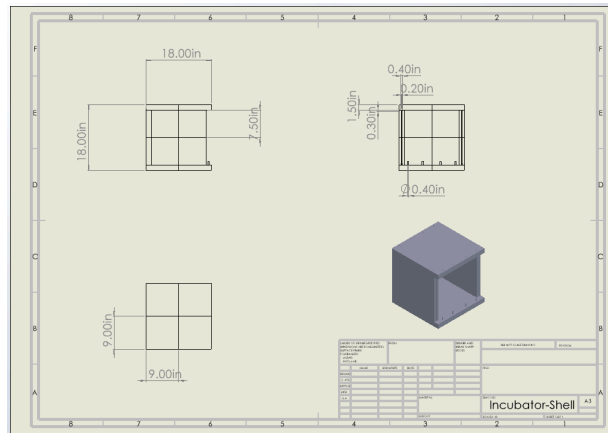
Brief status update

The team has been working on creating design improvements and testing plans for this upcoming semester. These improvements have been put into a preliminary presentation that will be presented to our advisor on Friday 2/9.

Difficulties / advice requests

Trying to figure out where to print our 3D prints in a cost effective way. Trying to decide if the Makerspace would be the best option.

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. Put the PID libraries in place and begin testing to see what libraries work the best for our needs
2. Look into printing options and start printing so we can test materials ASAP

Next week's individual goals

- Tanishka:
 - Look at ways to put the PID library into the existing code
 - Give a preliminary presentation.
- Loukia:
 - Give a preliminary presentation.

- Focus on implementing PID libraries and working collaboratively Tanishka on writing software
- Sophia:
 - Give presentation
 - Finalize exterior design in CAD
 - Choose materials to print exterior with, evaluate cost estimates.
- Erwin:
 - Perform preliminary presentation
 - Polish Incubator shell in SolidWorks

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													
Prototyping																
Testing																
Feedback																
Deliverables																
Progress Reports	X	X	X													
Prelim presentation																
Final Poster																
Meetings																
Client																
Advisor	X	X	X													
Website																
Update	X	X														

Filled boxes = projected timeline

X = task was worked on or completed

Previous week's goals and accomplishments

- Team:
 - The team has finalized a shell design and shortlisted some PID libraries to use
- Tanishka:
 - Create the preliminary presentation and present it soon
 - Identify PID libraries that could work with our design
- Loukia:
 - Completed presentation
 - Helped with planning for the PID
 - Helped plan overall testing ideas for the sester

- Sophia:
 - Completed presentation sections
 - Devised PID plan related to libraries to test and testing procedure.
- Erwin:
 - Completed presentation
 - Reviewed research regarding incubator material options

Activities

Name	Date	Activity	Time (h)	Week Total (h)	Sem. Total (h)
Tanishka Sheth	2/1-2/8	Find PID libraries that work with Arduino and complete the preliminary presentation	2	2	3.5
Loukia Agoudemos	02/07	Finishing up preliminary presentation and planning the testing	2	2	3
Erwin Cruz	1/26-2/8	Meeting with Dr. Block and deciding next steps and collecting old CAD prints	1	1	2.5
Sophia Finn	1/26-2/8	Met with advisor, research Arduino PID libraries, updated website	2	2	3.5