

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

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Date: 3/15-3/21

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 completed preliminary assembly of the components of the incubator. This includes the exterior shell and the creation of the initial new circuit. The team aims to conduct testing after returning from spring break.

Difficulties / advice requests

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

Current design

Final Poster																	
Meetings																	
Client																	
Advisor	X	X	X	X	X		X										
Website																	
Update	X	X	X	X	X	X	X										

Filled boxes = projected timeline
X = task was worked on or completed

Previous week's goals and accomplishments

- Team:
 - The team met to complete the initial prototyping with the finalized parts.
- Tanishka:
 - Completed building of the circuit and preliminary code.
- Loukia:
 - Build the exterior shell with Sophia
- Sophia:
 - Built the exterior shell with Loukia
- Erwin:
 - Built the circuit with Tanishka

Activities

Name	Date	Activity	Time (h)	Week Total (h)	Sem. Total (h)
Tanishka Sheth	3/15-3/21	developed the circuit and code	3	3	15.5
Loukia Agoudemos	3/15- 3/21	Built the shell	2	2	15
Erwin Cruz	3/15-3/21	Built circuit	2	2	11
Sophia Finn	3/15-3/21	Built the shell	3	3	13.5