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Feedback and decisions

Feedback:
https://docs.google.com/spreadsheets/d/149bWm6W0TlRPuyDXkkflSCXZ5KmUEu_SEEUAruHf5cc/edit?usp=sharing

Options that we are considering for the post-MVP iterations, based on the feedback that we received:

- More brainstorm over using common shapes
- Using an equation to allow some tweaking for the initial shape
- Thinking about the shapes in terms of manufacturability
- Starting with an existing hydrofoil or with any other shape
- Considering 3D printing an extruded shape of the evolved hydrofoil, and running a wind tunnel analysis on the shape to observe if it actually performs as we expect it to
- Definitely, think about sweeping across various angles of attack
- Write our own evolutionary algorithm not using the DEAP package
- Validation of our algorithms with a 3d model of the evolved foils

Some questions that we want to answer:

- Does the cross-section of the wing change over the length of the wing?
- How quickly does our algorithm cycle through generations? Is out analysis dynamic or static - are we calculating static drag, or is the fitness function across time and space?
- What are the learning goals for the level of research that we conduct?
- Should we spend more time researching DEAP, or writing our own version of a genetic algorithm?
- Is this project over-scoped?

Review process reflection

All in all, we believe the review went well. We think some of the feedback we received is useful and will help us implement our project. People seemed to have varying opinions on each of the questions - how should we define the initial shape of the airfoil, etc. Which makes it difficult to utilize effectively. Most of the concerns people expressed were for over-scoping the project. I think we will not have difficulty with this because there are many forms of the project which are very achievable. This idea was also expressed in the feedback we received.

The feedback we got through our form was mixed with regards to the detail we provided. For some people, we provided too much overview and not enough of the technical detail; whereas, for others there wasn't enough background information. We think something that would have

alleviated this disparity would be spending more time explaining what a hydrofoil is, and less on the other background information. Other than that, most people seemed to agree with our process and like our current direction, though many offered helpful suggestions and questions that we will try to incorporate later.
We did a pretty good job of staying on schedule, except the first part was quicker than expected and the other parts ran longer. However, we were pretty close to the anticipated timing, and got answers to all of our questions.

Something that made this review session difficult was explaining what we were doing to others. It would have been advantageous to spend more time doing live demonstrations, or engaging the audience in a two-way dialog.