

# NaviGator AMS

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## Abstract

## Vehicle Design

## Experimental Results

$$\sum_{i=0}^n i^2 = \frac{(n^2 + n)(2n + 1)}{6} \quad (1)$$
$$y = mx + c$$

## Acknowledgement

## References

## Design Strategy

Leverging 21 years of autonomous vehicle development experience at the University of Florida, NaviGator 2018 has progressed to accommodate advances in sensors, computing, and mission requirements. Designs decisions evolved from brainstorming, planning, and testing. NaviGator 2016 success in 2016 RobotX Maritime servered as an additional source of consideration for design.

Given previous experience, in order to increase the margin of error and tolerance inverals, hardware decisions were made such that NaviGator contains a number of redudancies and is capabale to safely solve tasks. For example, NaviGator employs two bow and two stern thrusters oriented at a fixed 45 degrees. This simplifies the vectoring of the thrust, and has been proven to be successful under directional water current. Moreover, NaviGator 2018 utlizes a Controller Area Network Bus to provide a robust, low-cost, communcation system accross connected hardware components.