Dear *potential sponsor*,

I am writing on behalf of Community Boating, Inc.'s Junior Sailing Program. Our mission includes the advancement of sailing for all and the empowerment of our members in teamwork, communication, and the power of volunteerism. This fall we are hoping to launch a new high school STEM (Science, Technology, Engineering, and Math) opportunity for our Junior members and ask for your support in making it a reality. The course is called RoboSail and it involves students programming and operating robotic model sailboats with on-board computers, sensors, and servo motors.

High school-age kids will take what they know and feel when sailing and teach it to a computer. The computer can "feel" using sensors, "thinks" with the program the kids write, then "acts" via servo motors controlling rudders and sails.

We expect it will appeal to kids, especially girls, who may not already be exposed to engineering projects, but are involved in sailing and outdoors/natural-world activities. Students will learn about mechanisms, electronics, and computer programming, all in the context of sailing. The goal is to empower them with new skills and encourage them to explore further education and careers in STEM fields.

The program is based on the SailBot college-level competition in which we sponsored a successful Junior team last year. That competition moves to a different international location yearly, and we were fortunate to catch it in Gloucester, MA. Team leaders from that project are creating the new RoboSail program, which is more suited to high school students while still allowing for a lot of technical learning and a friendly competition.

Integrating STEM education into our normal class offerings is a long term goal of our organization, and this is an excellent opportunity for junior members, and adult volunteers, to combine their working sailing knowledge with new engineering skills in a challenging, relevant, fun, hands-on project. We believe this course can be offered as a repeating week-long course in the Junior Program next summer.

Through this project, we expect the participating students to:

1. Be proud of their ability to learn and apply technical concepts on a challenging problem
2. Be inspired to explore technical subjects and STEM fields
3. Have new skills in programming, electronics, mechanisms, and design.
4. Think at a high level and create algorithms that translate their sailing knowledge into code for a robot
5. Deepen their understanding of the physical principles and strategies involved in sailing.
6. See connections to real-life robotics problems such as unmanned vehicles in challenging environments.
7. Feel that their time in the course was well-spent and want to continue in CBI programs.

We are reaching out for support in this endeavor and are looking to raise $6,000.

The funds will be used to support the development of the curriculum, the design of the robotic sailboat platform, and for the materials that students use in the program. We aim to create the following:

1. A reliable, easy to use, easily supported robotic sailboat platform with Arduino computer, electronic sensors for GPS, compass, and wind direction, interconnect wiring, and waterproofing for electronics.
2. A training program for adult volunteer instructors
3. A student curriculum for a 5-day course

The development is being led by Diane Brancazio, a CBI member, volunteer instructor, and local science/engineering teacher. We appreciate that volunteers are contributing their valuable time and skills in the development of this project and we want to support them by funding development materials.

We expect to have about 18 students in the pilot program, with adult volunteers serving as mentors. This will be a great opportunity for adults in our local community with skills in programming and robotics to volunteer their time. It is my hope that this will be an invaluable experience for the students and volunteer mentors involved.

As a sponsor, we could find a way to display your logo on our boat or otherwise acknowledge your participation to the larger community. Thank you very much for your consideration and for your desire to make a difference for kids and support STEM education!

If you have any questions about the project or our Youth Program in general, I can be reached by email at ginger@community-boating.org or by phone at 617-523-1038 ext. 16.