

# Judge Resources – Engineering Design Judging

2021 SeaPerch Season

[www.seaperch.org](http://www.seaperch.org)

## Welcome to 2021 SeaPerch Engineering Design Judging!

Thank you for investing in the lives of our SeaPerch students. Judges are instrumental in selecting the top teams at the 2021 SeaPerch International Challenge and your honest/encouraging reviews will help our teams know where they excelled. Watch our amazing students learn and grow, enjoy their stories and dreams, and provide feedback to help them succeed.

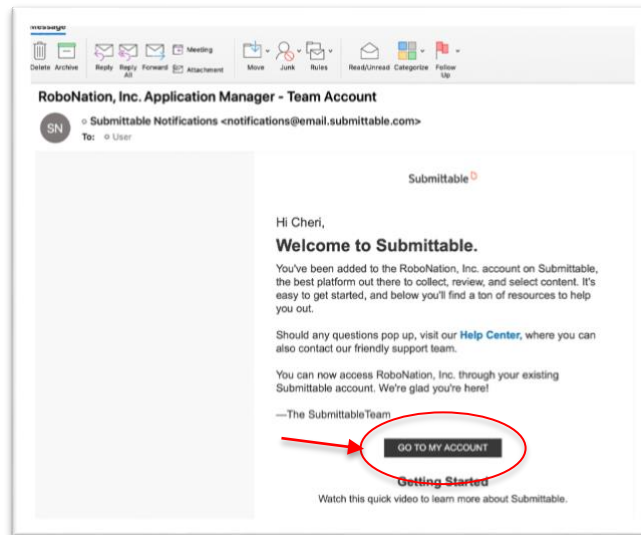
## Judging Guidelines

1. Engineering Design judges should have knowledge of general engineering design principles or experience in writing, reading, or reviewing reports on technical topics.
2. Judges in this event will review and score a 5 page Technical Design Report (TDR), plus additional reference sections, if applicable. The TDR describes the SeaPerch ROV engineering design process that addresses either the prescribed SeaPerch Mission Course or a real-world application for their ROV.
3. Judges will sign up for a certain number of team paper reviews and will have until the end of each round to complete their review and scoring. Final scoring must be completed by May 20<sup>th</sup>.
4. Elements of the Technical Design Report include:
  - a. **Abstract** – concise explanation of key points of the paper
  - b. **Task Overview** – overview of the tasks the ROV was designed to accomplish
  - c. **Design Approach** – description of the design strategy, approach, decision making, and team management
  - d. **Experimental Results** – description of various testing accomplished – in-water or simulated
  - e. **Reflection & Next Steps** – reflection on the team’s experience and next steps for the future
  - f. **Acknowledgements** – section that identifies resources and support
  - g. **References** – reference citation section
  - h. **Appendix A: Budget** (required) – for components used outside the standard ROV kit materials
  - i. **Appendix B: Fact Sheet** (required) – 1 page team fact sheet
  - j. **Appendix C: Engineering Notebook** (optional)
5. Engineering notebook scoring will be conducted on the Submittable platform (see instructions below).
6. [Engineering Design Rules](#)
7. [Engineering Design Scoring Rubric](#)
8. Judge Comment Guidelines - One of the main requests we receive from our teams is for comments and feedback from you, our judges, for all events. We love to be able to provide your positive and constructive feedback, so when providing written feedback, please remember the following:
  - a. Offer both positive and constructive feedback that supports the score you provided
  - b. If something impressed you, mention it.
  - c. Conclude your comments on a positive note that helps build self-esteem and self-confidence.

## Your Judging Experience

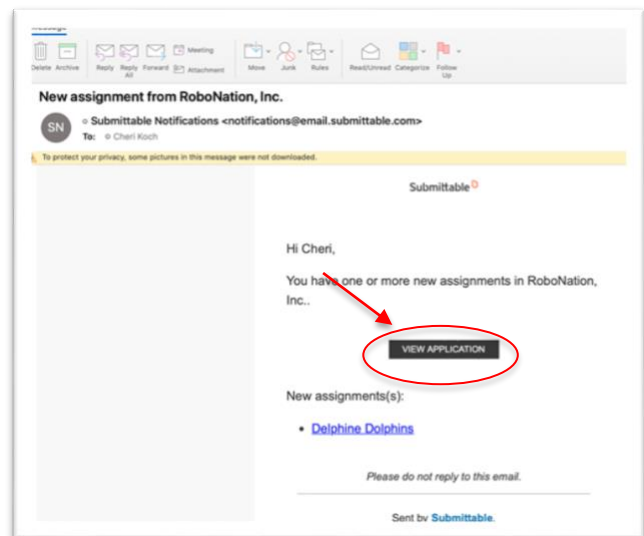
You will be using the Submittable platform to score the Engineering Design submissions. See below for a detailed walkthrough. Prefer a video? [CLICK HERE](#) for a video walkthrough of these instructions.

**Step 1:** You will receive an email invitation from Submittable, our registration platform. Follow the link and complete the prompts to create a reviewer account. You will use your e-mail as a User ID and create a password. ***Please be sure to check your spam or junk mail folder for email notices from RoboNation/Submittable.***



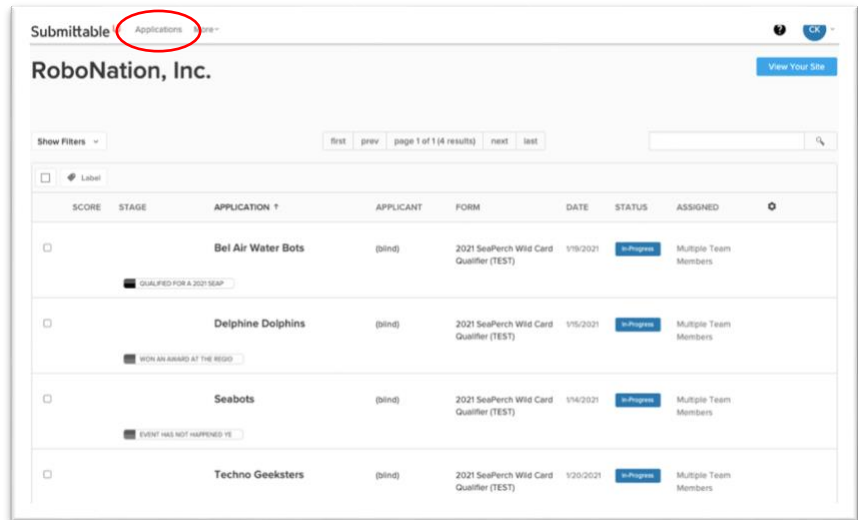
**Step 2:** Once your account is activated, judges should log in to become familiar with the system. To watch an overview video on how Submittable works as a judge, [CLICK HERE](#) or see the video at the bottom of your invitation e-mail.

**Step 3:** Once an Engineering Design submission is received, RoboNation will assign judges based on availability. When you are assigned to a review, you will receive an email from “Submittable Notifications” ([notifications@email.submittable.com](mailto:notifications@email.submittable.com)) notifying you of the assignment. Be sure to check your spam or junk mail folder. Click on the “View Application” link in the email.

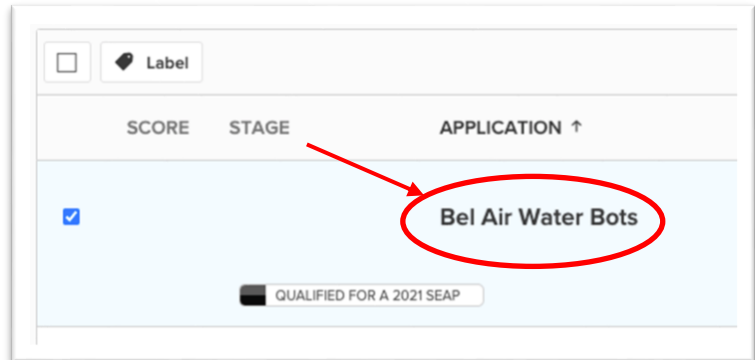


**Step 4:** Log into your account at [www.Submittable.com](http://www.Submittable.com).

**Step 5:** You will see all the submissions you have been assigned to review. If there are multiple tabs at the top of your screen, click on “Application” to see the submissions you are assigned.





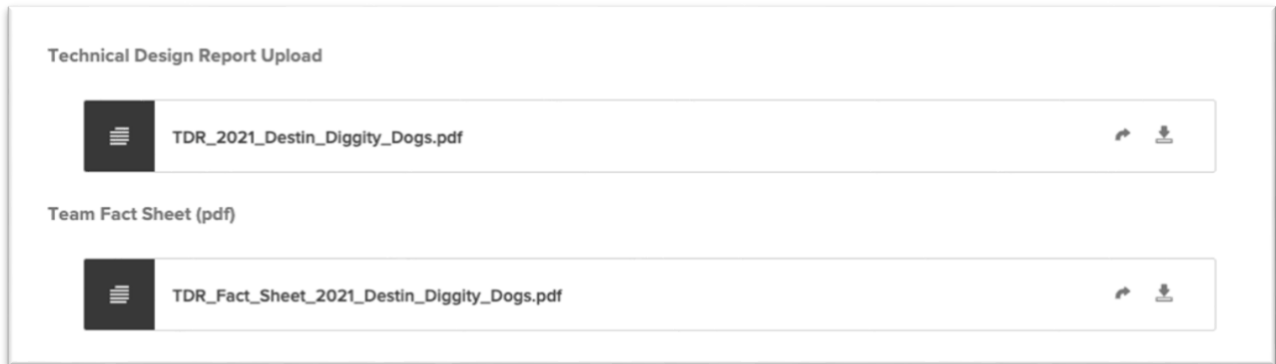
**Step 6:** Click on the team’s name to view the submission you wish to score.



**Step 7:** The team submission page will open, and the “Additional Forms” box will be at the top. Click the drop-down arrow in the “Engineering Design Submission” box.

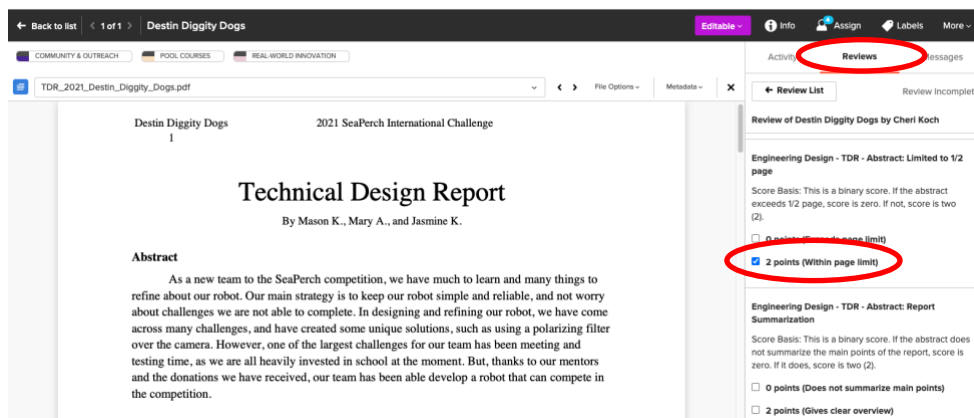


**Step 8:** Scroll down to the document files. Click the document title or the open arrow (  ) to open the document (Technical Design Report or Fact Sheet). Alternately, click on the download symbol (  ) to download the file to your computer. Due to the size of the files, the paper and video might take a few minutes to load.



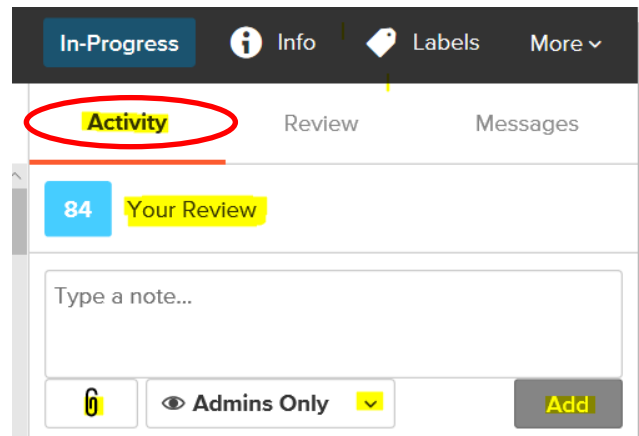
**Step 9:** Access the rubric on the right panel. Compare and rate the team’s report with the rubric and assign rankings to each of the appropriate sections.

Please leave feedback for the team in the comments section of the review form. **Feedback for the teams is highly encouraged and greatly appreciated.** We get requests for feedback every year from our teams, so please consider adding your thoughts to every review you complete. If you don’t have any comments to add, simply type “N/A.”

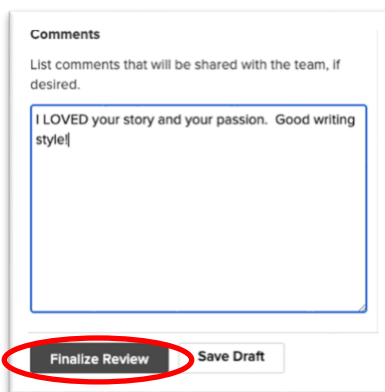


**Step 10:** Click the “X” in the upper right hand corner of the TDR document to close it.

**Step 11:** If you need to request a re-assignment or have other comments that you’d like to leave for the event organizers (Admin Only), click the “Activity” tab in the upper right corner. You can choose for whom you’re leaving the comment, and your feedback will only be visible to that recipient. Click “Add” to submit your comments/attachments.



**Step 12:** You can save rankings as a draft (Click the “Save Draft” button at the bottom) until you are confident of your review. **Once you click “Finalize Review”, your rankings cannot be changed.** Your final rank will show in the top right corner of the page in a blue box.



**Thank you for your willingness to make a difference in the lives of our SeaPerch students!**

*"The heart of a volunteer is not measured in size, but by the depth of the commitment to make a difference in the lives of others." DeAnn Hollis*

Please contact Cheri Koch, RoboNation Events Manager at [competitions@robonation.org](mailto:competitions@robonation.org) or +1-850-642-0536 if you have any questions.