



DS Brisa Ayub

Coaches' Guide: Final Mission



You've made it! Congratulations. We are thrilled to have you participating in this final round. Use this guide to better understand the Final Mission, the expectations for both you and your teams and some insight to how the process will be moving forward.

Here are some of the logistics you need to know:

Note: You can print any page of this guide using CTRL+P, or you can save it as a PDF and then print in its entirety. [Watch this video](#) if you need more help with printing the Coaches' Guide.

☰ THEME & STORYLINE

☰ DATES & COMMUNICATION

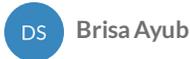
☰ FINAL MISSION & SUBMISSION

≡ PRIZES & OTHER GOODIES

≡ THEME RELATED CONTENT

≡ MEDIA RELEASE FORM

THEME & STORYLINE



Theme

Your exploration of the vast ocean is not over! Due to your team's stellar work in the first five missions, Wonder Workshop has asked your team to assist in one Final Mission. In the spirit of our theme of ocean exploration, we will be asking teams to create a unique presentation that highlights a marine species' migration and behaviors. The teams will be mapping out various elements on the species' life journey.

To complete the Final Mission, teams will need to create aspects of the map itself using our award-winning [Sketch Kit](#). Thanks to Acer and Microsoft's sponsorship, each Invitational Round team will receive the gift of a Sketch Kit in order to map out part of the journey using basic geometric shapes.

Teams will then place these items on their regulation mats and, using the criteria given in the Final Mission, will need to program their robot to successfully solve the various challenges that are presented to them.

What is unique in this round is that each team will then share a presentation about what they uncover and discover about the fictitious species and its journey, which will encourage both research and storytelling skills.

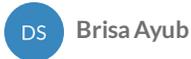
Storyline

The mysterious sea creature that was rescued in Mission V needs your help rescuing its babies! The teams need to track the mysterious sea creature to learn all that they can about the species, to help inform others of the creature's behaviors and its environmental needs and to help relocate the babies to a safe spot using an original attachment design.

- Your team must create an original attachment that your robot can control.
- Dash or Cue needs to control the attachment (no help from human hands).
- Consider decorating your "set" to reflect your version of the creature's journey. Just note, you cannot alter the balls or cups in any way that will aid in the carrying or depositing of balls.

As in years past, the top five teams in each age category - for a total of **15 Final Teams** - will be chosen through a series of challenge points and rubric scores.

DATES & COMMUNICATION



Dates

The Invitational Round is set to run **March 1st - April 5th**. We purposely made this window a little longer than first announced, as we know many stateside teams have spring breaks in the next two months. All submissions will be due by **April 5th at 12:00 midnight (PST)**. We will announce the top 15 teams, including the winners, at the end of April.

Communication

We have one new Edmodo group for you to join in case you have questions or want to chat with the other finalist coaches (you can still stay active in your previous groups). Please click up on the upper righthand corner to JOIN A GROUP, and enter the code **rb3h3z** to join the Invitational Round group. We will still be uploading various pieces of content through the [Coaches' Corner](#).

FINAL MISSION & SUBMISSION



Final Mission Release

The mission, in both PDF and Google Slides format, will be linked in the Edmodo feed, as well as released through the [Coaches' Corner](#).

Submission

We have one final submission form that you will need to complete in one sitting for each team (we will share this in the next month). Therefore, we suggest waiting until you have all the materials finalized. In this form, we will be asking you to:

- confirm your contact information
- confirm your team members' data
- upload or attach media release forms (included in this guide) for you and your team members (signed by their parents)
- submit the required evidence for evaluation (see below)

Evidence & Scoring

(Part 1): We will be scoring your program as follows using your code base (a screenshot of Blockly or Wonder Key if you are using Dash, or a screenshot of your program if you are using Cue) and the accompanying video of your robot running through the program successfully:

Ages 6-8	Ages 9-11	Ages 12-14
<p>Scoring:</p> <ul style="list-style-type: none"> • 5 points for constructing an original device • 10 points per shape that Dash can draw from the identified shapes (20 points max) • 20 points for constructing an original attachment • 30 points for successfully relocating the baby sea creatures to their new nest. 	<p>Scoring:</p> <ul style="list-style-type: none"> • 5 points for constructing an original tracking device • 10 points per shape that Dash can draw from the identified shapes (20 points max) • 20 points for constructing an original attachment • 30 points for successfully relocating the 2 baby sea creatures to their new nest. 	<p>Scoring:</p> <ul style="list-style-type: none"> • 5 points for constructing an original tracking device • 10 points per shape that Cue can draw from the identified shapes (20 points max) • 20 points for constructing an original attachment • 30 points for successfully relocating the 3 baby sea creatures to their new nest.
<p>Bonus points:</p> <ul style="list-style-type: none"> • 20 points for thematic set design • 5 points for adding sea creature sounds in the program as Dash moves along the route. • 5 points for dressing up and giving Dash a name as the mysterious sea creature • 5 points for passing through at least one food source cell • 5 points for having Dash use multiple colors in your drawings. 	<p>Bonus points:</p> <ul style="list-style-type: none"> • 20 points for thematic set design • 10 points for creating an attachment that can carry and deliver both babies (2 ping pong balls) at the same time to the relocation nest. • 5 points for adding sea creature sounds in the program as Dash moves along the route. • 5 points for dressing up and giving Dash a name as the mysterious sea creature • 5 points for passing through at least one food source cell • 5 points for having Dash use multiple colors in your drawings. 	<p>Bonus points:</p> <ul style="list-style-type: none"> • 20 points for thematic set design • 15 points for creating an attachment that can carry and deliver all babies (3 ping pong balls) at the same time and then deliver each baby to their very own nest (1 egg per nest). • 5 points for adding sea creature sounds in the program as Cue moves along the route. • 5 points for dressing up and giving Cue a name as the mysterious sea creature • 5 points for passing through at least one food source cell • 5 points for having Cue use multiple colors in your drawings.
<p>Total points possible: 115 points</p>	<p>Total points possible: 125 points</p>	<p>Total points possible: 130 points</p>

FINAL MISSION POINTS

(Part 2): Then, we will be evaluating teams on the following criteria, using a three-rubric progress:

1

Final program (video of robot executing + code): We will be looking for efficacy, efficiency, elegance, and creativity.

2

Mission Logbook: These can be shared as PDF, website, blog, or slides. Ought to be a team-based journal, with all members making meaningful contributions. Should showcase collaboration, planning, design thinking, reflection, goal setting, and problem solving. Can include images, videos, written reflections, drawings and diagrams

3

Final team presentation: This narrative ought to highlight the team's creativity in a multimedia way (can include images, short videos, diagrams/drawings, written sections, audio clips. Final story-based/thematic presentation which; Introduces your team and collaborative ways in which you worked together. Highlights your design process. Showcases your final solution in action. Ties to the theme of your missions

WLRC Rubrics for Evaluation

Wonder Workshop will use the following rubrics to evaluate the finalists' submissions for the Invitational Round. In case of a tie, Wonder Workshop reserves the right to use its discretion to determine the top five teams in each age category above and beyond points earned.

	10	20	30
Solution Code (for Wonder, Blockly & Cue)	Solution code has some bugs, is unorganized and/or unsuccessful	Solution code is successful, clean and concise	Solution code is successful, plus robust, elegant, and creative
Video of Dash/Cue Running Through Program	Dash does not complete the mission successfully	Dash completes the mission successfully	Dash completes the mission and goes above and beyond by earning bonus points

FINAL SOLUTION RUBRIC



	10	20	30
Planning	Little to no evidence of planning	Evidence of a planning phase from at least three meetings	Overarching goals set and evidence of a planning phase, complete with documented plans from more than three meetings
Reflecting	Little to no evidence of reflection documented	Reflection from at least three meetings that informed next steps	Thoughtful reflection from more than three meetings via a variety of multimedia (written, video, drawings/diagrams) that informed next steps
All Team Members Contributed	No evidence of who contributed what to the journaling	Evidence that team members each contributed to the mission objectives and team journal	Evidence that all team members contributed to different parts of the mission objectives and team journal

FINAL TEAM MISSION LOGBOOK RUBRIC



	10	20	30
Team Introduction	Not all members introduced	All members introduced	All members introduced, with some insight about their roles and contributions
Solution	Unsuccessful code and/or no evidence of robot successfully running through the program	Evidence of clean, concise code that successfully moves robot through the program	Evidence of robust, elegant, and creative code, with robot successfully completing program
Engineering Process	Little evidence of planning and reflection regarding programming	Some evidence of planning and reflection regarding programming	Thorough evidence of planning and reflection regarding programming
Design Thinking Process	Little evidence of the attachment design process	Some evidence of how the attachment was created	Thorough evidence of design thinking process: planning, prototyping, and testing attachment
Storytelling	Lacking a narrative about the team's Final Mission journey	Good sense of narrative, illustrating the team's journey throughout the Final Mission	Excellent story detailing and highlighting the team's journey throughout the Final Mission
Creativity	Little creativity when tying presentation to WLRC oceanography theme	Some creativity exhibited in final presentation, linking to WLRC oceanography theme	Lots of creativity demonstrated in final presentation, tying to WLRC oceanography

FINAL MISSION PRESENTATION RUBRIC

Notes & Tips

Please consider making sure you have the following woven throughout submissions:

- You can use your mat that you are already using. No need to make or purchase anything new.
- You can use plain white computer paper for your final drawings using the Sketch Kit. You are not required to purchase a Sketch Kit Mat, but we do suggest that you allow your teams' to practice on something that is erasable as this will help with problem solving and will not drain your dry eraser markers. You can use a white board that can be placed on the floor, etc.

- You might have noticed in the Logbook rubric that we are looking for reflection from at least 3 meetings. In our experience, this tends to be the "sweet spot." If you want to break up your sessions by hours that is fine too, it doesn't have to be 3 meetings on 3 separate days.
- As a rule of thumb, we should be able to review your Final Presentation (in whatever format) in **10 minutes or less** (i.e., no 20-minute video presentation, please).
- Show, don't tell! Use various media (photos, illustrations, video, audio) to illustrate the team's design thinking process and journey toward completing mission objectives.
- When sharing videos, be judicious about which clips you include and how long they are; less is more.
- Please subtitle videos and/or provide transcripts of audio clips if speaking in a language other than English (see [YouTube's closed captioning language option](#)).
- Document at least three team meetings in your Final Team Mission Logbook (add meeting dates where appropriate) You can access and modify our official logbooks from the [Coaches' Corner](#).
- Credit team members where and when appropriate.
- Be "kid authentic" -- we look fondly upon kids' typos and amateur multimedia skills! Remember, it becomes obvious when submissions are too adult-polished.

PRIZES & OTHER GOODIES



Prizes

- The team members in the top five teams for each age category will receive a robot of their choice, an official Wonder Workshop certificate, and this year's official t-shirt. Also, thanks to the wonderful support from our friends at Acer, each team member and their coach will receive an [Acer TravelMate Spin Notebook](#).
- The top team in each age category will also receive a \$5,000 STEAM grant grand prize.

Other Goodies

By April, we will share writable PDF certificates you can use to acknowledge your team's accomplishments, regardless of final outcomes. Similarly, we are happy to share some graphic designs you can use if you want to create finalist t-shirts. Our friends at [Wonder Apparel](#) have them all ready to go!

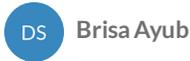
Past Year's Winners

Several of you have asked for examples from last year's competition. Take a look at some of these posts:

- [Winners of the 2017-2018 Wonder League Robotics Competition!](#)

- [Announcing the Winners of the 2016-2017 Wonder League Robotics Competition!](#)
- [2018 Wonder League Robotics Competition Honorable Mentions](#)
- [Atlanta Journal-Constitution: Cobb first graders place second in international competition](#)
- [USAToday: All-girls team wins international competition](#)

THEME RELATED CONTENT



Theme Related Content for the Final Mission

Needing some questions to help spark some creativity and curiosity for teams as they come up with their final mission presentations? Here are some questions and supportive content to consider:

- Connect where new sightings have occurred over the time you have spent tracking the creature.
- What is your team using to track this creature, and how does that system work? How do you interpret this data?
- Where do these creatures hatch, and why?
- Where do they hunt? What do they eat, what does their diet look like, and does that change as they migrate? Where do they migrate to and from? How does this creature know when it is time to migrate? Why? Do they move in packs or are they solo creatures?
- Did you notice where human impact affected the creatures' migration or habitat?
- Use supporting real-world content to help teams learn more about tracking live marine species and their migrations, and how tracking data can be used.
- - Nearpod's curate content all about the ocean and its inhabitants. Perfect for this year's oceanography theme: <https://nearpod.com/s/F106829>

- Sea Turtles Guided Home by Magnetic Sense:
<https://www.sciencefriday.com/segments/sea-turtles-guided-home-by-magnetic-sense/>
- Seals Deep Dive for Ocean Data: <https://www.sciencefriday.com/articles/seals-deep-dive-for-ocean-data/>
- Mapping Blue Whale Migration:
<https://www.nationalgeographic.org/activity/mapping-blue-whale-migration/>
- 9 Migratory Marine Species to be Given Better Protection:
<https://www.oceanoculus.com/news-from-the-sea/9-migratory-marine-species-to-be-given-better-protection>
- Polar Vortex: <https://scijinks.gov/polar-vortex/>

MEDIA RELEASE FORM

 DS Brisa Ayub



**Wonder Workshop - WLRC Media Release - Children & Adult
(2).pdf**
114.1 KB

