

Hi EXPLORER class teams:

Attached is an information list regarding your benthic species image recognition and autonomous control submissions. See pg. 4 for notes and comments. If additional information is needed or to address comments in the notes section, please contact lead image recognition judge Lisa Bradshaw: lisahicks7603@gmail.com.

Thank you.

| | | | Benthic Species | Line Following | Mapping Crack | Length of Crack |
|-------|--------------------------------------|-------------------------------|-----------------|----------------|---------------|-----------------|
| EX 6 | AASTMT | Invictus | Good | Good | Need info | Good |
| EX 20 | Alexandria University | Made In Alexandria (MIA) | - | - | - | - |
| EX 22 | Alexandria University | ROBO-TECH | Good | Good | Need info | Good |
| EX 14 | Case Western University | CWRUbotix | Good | Good | Good | Need Info |
| EX 5 | CETYS University Mexicali Campus | SeaFox Inventive | - | - | - | - |
| EX 3 | City University of Hong Kong | CityU Underwater Robotics | Good | Need info | Good | Good |
| EX 18 | Copiah-Lincoln | SeaWolves | Good | - | - | - |
| EX 19 | ETH Zürich | Tethys Robotics | Good | Good | Good | Good |
| EX 23 | HKUST | EPOXSEA | Good | Good | Good | Good |
| EX 9 | Jesuit High School | Jesuit Robotics | Good | Good | Need info | Good |
| EX 24 | Linn-Benton Community College | Linn-Benton ROV | Good | - | Need Info | Good |
| EX 17 | Long Beach City College | Viking Explorers | Good | Need info | Need Info | Need Info |
| EX 4 | Macau Anglican College | Fish Logic | Good | - | Need info | Good |
| EX 10 | Memorial University | Eastern Edge Robotics | Good | Good | Good | Good |
| EX 13 | Newcastle University | NUROVers | - | - | - | - |
| EX 2 | Politecnico di Torino | PolITOcean | Good | Good | Good | Good |
| EX 12 | Purdue University | Purdue IEE ROV Team | Good | Good | Good | Good |
| EX 25 | SVKM's NMIMS MPSTME | Team Screwdrivers | - | - | - | Good |
| EX 7 | Tecnológico de Monterrey | TecXotic | Good | Good | Good | Good |
| EX 1 | University of California, Santa Cruz | Slugbotics | Good | Good | Good | Good |
| EX 11 | University of Central Lancashire | UMC - UCLAN Mechatronics Club | Good | - | - | - |
| EX 21 | University of Rhode Island | URI Hydrobotics | Good | Good | Need Info | Good |
| EX 15 | University of Sheffield | Avalon | Good | Need Info | Good | Good |
| EX 16 | University of Stavanger | UiS Subsea | - | - | - | - |
| EX 8 | Yildiz Teknik Universitesi | CASMarine | Good | Good | - | - |

Notes

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|-------|---|
| EX 6 | Benthic Species: Make sure the total count of each Species is displayed on a screen, not just the shape identified Mapping Crack: Not clear how the location of the crack is identified in the grid. |
| EX 20 | Needs to provide algo description and block diagram |
| EX 22 | Mapping Crack: Not clear how the location of the crack is identified in the grid autonomously |
| EX 14 | Length of Crack: How is length of crack displayed on the screen? |
| EX 5 | No Documents submitted. |
| EX 3 | Autonomous line following: Please provide clarification on how the image is processed to move the ROV. It is not clear if the ROV is moving fully autonomously, or if there is some user input from the pilot to help guide. |
| EX 18 | Benthic Species: Make sure the total count of each Species is displayed on a screen, not just the shape identified |
| EX 19 | |
| EX 23 | Benthic Species: Make sure the total count of each Species is displayed on a screen, not just the shape identified |
| EX 9 | Mapping Crack: Not clear how the location of the crack is identified in the grid autonomously |
| EX 24 | Mapping Crack: Not clear how the location of the crack is identified in the grid autonomously |
| EX 17 | Autonomous line following: Please provide clarification on how the image is processed to move the ROV. Mapping Crack: Not clear how the location of the crack is identified in the grid autonomously Length of Crack: How is length of crack displayed on the screen? |
| EX 4 | Mapping Crack: Not clear how the location of the crack is identified in the grid. Autonomously or Manually? |
| EX 10 | |
| EX 13 | No Documents submitted. |
| EX 2 | |
| EX 12 | Benthic Species: Make sure the total count of each Species is displayed on a screen, not just the shape identified |
| EX 25 | Novel use of Sobel response |
| EX 7 | |
| EX 1 | Clever method of using IMU data to create mapping based on vehicle velocity and know grid size |
| EX 11 | |
| EX 21 | Light on detail for all topics. Did not understand how the 'mapping' would take place using altimeter (great idea btw) |
| EX 15 | Line following - flowchart states "direction displayed on console" - will this require human input at that point? |
| EX 16 | No Documents submitted. |
| EX 8 | Line following - not going to have a black background, only black grid lines. Refer to competition spec for clarity. |