

## 2024 Product Demonstration Company Briefing

This briefing will go over some of the information your company may need to know regarding your product demonstration runs. More information on the tasks is available in the competition manuals and [Official Rulings document](#).

**Be on time.** Everyone has a schedule. Be at your engineering presentation room 10 or 15 minutes prior to your presentation. Be ready to go 20 or 30 minutes prior to your product demonstration run. Weight measurements happen prior to your product demonstration time. The pool deck coordinator will not wait if you are still trying to get your weight done when your product demo time is scheduled. Your set up time and product demonstration time will start, even if you are back getting your vehicle weighed. Eight companies need to be weighed, and it will be done in the order they show up. Don't show up late.

**Missing your run:** If your vehicle is not functioning and you cannot make your product demonstration run, send a company member to inform the pool deck coordinator that you are not showing up. Please let us know.

**Communicate with the station judges.** Let the judges know what task you are working on. If you have multiple video monitors, let the judges know what monitor is doing the active mission. The more information you give your judges, the easier it will be for them to score you properly. If you think you have completed a mission, ask the station judge.

This is especially important if more than one thing is going on at once. If a company member is graphing sturgeon data, or for EXPLORER/PIONEER receiving data from the float, communicate this to the judges. Most likely it is someone other than the pilot doing these things, so communicate with the judges. The better you communicate with the judge, the more smoothly everything will go.

**No tasks can be done after the 15-minute time period.** All the tasks must be done within the 15-minute mission time. That includes creating the 3D model, graphing sturgeon or float data, and more. If the judges do not see the finished product by the end of the 15-minute mission time, you will not receive points for it.

This goes back to communicating with the judges. If you do not communicate the fact that you finished a task, you may not be scored for it.

The judge should tell you when you have received points for something.

**Companies must have passed safety inspection.** All companies MUST have their blue, passed safety check card. You will get these from the safety inspectors when you pass safety inspection. If you do not have this, you do not get into the water. No exceptions. If you do not have it, you need to retrieve it. Time will not stop while you are retrieving your card.

**5-minute setup time.** Companies have 5 minutes to set up. Companies may put their vehicles into the water and test power/motors/etc. ROVs cannot descend and check out the missions during set up; they should go no deeper than 0.5 meters. Companies must start at the surface, side of the pool. If a

company does not finish setting up within 5 minutes, their mission time starts. They can continue setting up and/or repairing their vehicle during mission time. If a company finishes setting up early, they do not get additional mission time. They can choose to start early, or they can wait until their 5 minutes is up.

You can calibrate your temperature sensor against the SMART cable's temperature sensor during set up.

**15-minute product demonstration time.** Companies have 15 minutes to complete all the mission tasks. The judges will award points as you accomplish tasks. When the mission time ends, you receive points for the tasks that you have accomplished but cannot receive any additional points.

Likewise, you can no longer receive penalty points after the mission time ends. If your ROV breaks down, and you want to avoid penalty points for diver assistance or pulling on the tether, ask the judge to end your mission run.

**5-minute demobilization time:** After the mission run, Companies have 5 minutes to pack up and exit the station. The judges may need the CEO to remain a bit longer to confirm points, but the rest of the company and their equipment should be moved out of the area.

**Time bonus:** To receive a time bonus, companies must have completed all the tasks perfectly and have received no penalty points.

## PRODUCT DEMONSTRATIONS

**Order of tasks.** Companies can start with any part of any of the four tasks. Companies can go back and forth between the tasks as desired.

For Task 1, you must pull the top pin to release the float before you can pull the pin to release the failed float to the surface.

A few tasks logically have to be done in order. For example, You need to place the irrigation system in the square and put the sprinkler over the coral head before you can turn it on.

### **Weight:**

Your will be weighed prior to each product demonstration run. Since you have two attempts at the product demonstration, you will be weighed twice, once for each product demonstration run. You cannot use your first weight measurement on your second run, or vice versa.

Once your ROV is weighed, company members cannot retrieve additional items for the vehicle or mission run. If you do, your ROV must be weighed again.

## Launching Through the Hole

Companies must launch their vehicle through the 1-meter x 1-meter hole. When your ROV is in the water, the tether must be through the hole for the entire product demonstration run. All items must be retrieved and deployed through this hole.

## TASKS

### Task 1:

Teams must release the recovery float to the surface before attaching the connector to the bale. But they do not need to retrieve the recovery float to the surface, side of the pool before attaching the connector to the bale.

### Task 2:

Coil the wire how on the SMART repeater how you want it. The judges may help to coil it up, but it is up to you to prepare it for your mission run. This can be done during the 5 minute set up.

The SMART repeater MUST be in the blue square designated area in order to compare temperatures and/or connect the AUV docking station.

### Task 3:

Teams do not need to keep the sprinkler system on the #6 screw hook when transporting it. How you transport down the sprinkler system and irrigation system are up to you.

To get points, the irrigation system must be deployed upright. There is a little bit of weight in the bottom, a little bit of flotation in the top to help out with this.

Autonomous coral deployment:

Once the coral is touching the red Velcro square, the pilot can take control. The pilot can release the coral from a gripper provided it is touching the red Velcro.

But if the pilot pulls the coral off the Velcro, then it would no longer be autonomous control – they would lose points for deploying the brain coral, and then have to re-deploy manually.

3D modeling:

No matter how you are doing it, you measure length. If you are creating your 3D image autonomously, you do not measure height – that comes from scaling your model. If you are creating your image via CAD or on paper, you do measure the height.

### Task 4:

On deck teams are limited to 6 people. 2 more are allowed to operate the float, but they cannot assist with other duties – sturgeon graphing, ROV repairs, etc. They are there for the float task only. They can work on getting the float into an ROV gripper, but then must go back to monitor the “receiver”.

For RANGER, those two people will move down to the deep end with all the necessary equipment – receiver, float, etc. Everything float related will happen at the deep end – not at the station. They will need to bring their float score sheet with them – it is separate from the mission score sheet.

Those 2 extra people can help carry stuff into and away from the station, but once set down, should concentrate on the float task.

Your shore side receiver can transmit a “go” signal to the float.  
You cannot transmit time or depth data to your float – it has to collect that and transmit it to your receiver.

After the mission is complete:

The CEO will go over scores with judges. The judge will let you know what you got points for.

Then CEO signs and judge signs.

Once you sign, there is no arguing later about scores.

IF YOU THINK THE JUDGE DID NOT GIVE YOU POINTS FOR SOMETHING YOU DID – DEAL WITH IT RIGHT THEN! YOU CANNOT COME BACK LATER. LET THE JUDGES KNOW YOU DISAGREE, STATE YOUR CASE. IF NEED BE, THE HEAD RULES JUDGES CAN BE BROUGHT IN.

But overall, the judge should score you – and tell you when you were successful – during the mission.

During the onsite product demonstration briefing, every question will be answered.

Good luck to all.