

## Indiana SeaPerch Information for 2015 Season

Updated information has been provided, including the link for registration and finesse challenge updates.

### **Dates, Locations and Numbers**

The tournament for the USI Regional will be held on the date listed below. Due to resources, such as volunteer availability and facility size, the number of teams allowed to compete at our regional tournament will be limited. The tournament details are as follows:

Saturday, April 25, 2015	USI Regional (Mount Vernon JHS)	60 teams
Friday-Saturday, May 29-30, 2015	National SeaPerch	8 Indiana Teams Advancing

### **Local School Challenges**

Due to the fact that our tournament will have a limited number of spots, each school will be limited to three (3) competing teams. For example, North Posey has a junior high and a senior high combined in the same facility. North Posey would be eligible to send three (3) teams from each of these schools to the regional tournament, thus making six (6) teams. In expansions over the past couple of years, numerous schools have sent multiple teams to the competitions. Furthermore, some new schools have joined into the SeaPerch program as well with only one or two teams from those schools. Indiana SeaPerch would like to make sure that the new teams have a chance to compete and are not shut-out of the competition by schools with multiple teams. The only way that can happen is if team registration is limited. For some schools, this will not be an issue. For those of you that typically send multiple teams, we encourage you to host a local challenge and advance your winners to a regional tournament. Your local competition does not have to mirror the 2015 SeaPerch Challenge.

### **The Registration Process**

Coaches can register at the following link starting at 8:00 a.m. C.S.T. on February 9 and closing at 5:00 p.m. C.S.T. on February 13.

[https://docs.google.com/forms/d/1NDaAde7-5tBBXNP1cLiPjJd7jAJ7pRvQxe\\_a\\_6gY8ug/viewform](https://docs.google.com/forms/d/1NDaAde7-5tBBXNP1cLiPjJd7jAJ7pRvQxe_a_6gY8ug/viewform)

Tournaments will be filled on a first-come, first-served basis. Registrations will not be accepted outside of this window. Let me repeat, NO LATE REGISTRATIONS WILL BE ACCEPTED! At registration, you will indicate the team name and event (Middle School, High School or Open) that each team plans to compete in. *You can register all of your teams at this point, but do so knowing that only the first three teams you register from each school will be included in the tournament.* A waiting list will be created by registration managers. Any empty spots at the close of registration will be filled with waiting list teams based on tournament openings and position on the waiting list. Coaches will receive an invoice by February 17. The entry fee for each team is \$40. During the registration process, coaches will be

required to provide the full name (first, middle, and last) of each team member along with their date of birth. Please be prepared to input this information during registration week.

### **Open Restriction**

Due to the fact that our tournament will be filled on a first-come, first-served basis, it is possible that one of the regional tournaments (USI Regional and Crane Regional) will not have enough open division teams to hold an open challenge at one of the regional competitions. Since Indiana is only guaranteed eight (8) advancement spots for the national competition, each Indiana regional has been allocated four (4) spots. To truly have an “open competition” challenge, all open teams may need to be combined into one regional tournament. Basically, if you are planning to use an open design, be prepared to compete on March 7, 2015 at the Crane Regional, no matter what region your school is in. It is not guaranteed that the Crane Regional at North Daviess will be the host of the Open Challenge, but all open division teams should be prepared, just in case. If you register in the open division, you will be notified of the date and time of the competition you will be attending.

Just a reminder, the determining factor on “open division” is that you spend more than \$20 on your ROV outside of the kit. Several of the “open” teams in the past few years have truly been stock teams due to the fact that they are configured differently than the typical stock ROV. Be prepared to provide evidence (receipts and inspection) that each open division team’s ROV qualifies as an open ROV just as stock ROVs are inspected prior to competition.

### **Posters**

We will not be having a poster session this year with the tournament. We will however offer teams the opportunity to share their poster on their pit table. At registration check-in teams may sign up for a time to be interviewed by a professional about their poster. A “Judges Award” will be given this year based on these discussions, but this will have no bearing on whether a team advances to the national championship. It is simply an opportunity for teams to discuss their ideas with professionals and get some feedback.

### **National Spots**

As stated before, there will only be four spots given out at each of the two regional tournaments as opposed to the 12-16 awarded in years past. The National SeaPerch committee is also trying to expand their tournament to reach out to teams from outside the super-regionals, which Indiana has become. We expect that the tournament will be very competitive this year. Please remember this as you prepare your team for the tournament, but also please remember that our main goal is to instill a love of STEM in students for our future.

## **The 2015 Challenge**

Please note that in the rules on the SeaPerch Challenge, there is a section that says that you are not allowed to remove/add hooks or attachments in between competitions. So basically, if you have an attachment on for the Finesse Challenge, it must also still be on during the obstacle challenge. This goes for stock and open class.

### **Obstacle Challenge**

Teams are required to traverse each of five- 24" rings, surface and return through the five rings. All Rings must be traversed in both directions. Fastest elapsed time wins. Teams will have two attempts at the course during their 15 min time allocation.

1. Only two team members are allowed on the pool deck during the competition.
2. The rings shall be traversed in order, closest to the wall first.
3. The SeaPerches must move only under their own power. It is prohibited for a team member to pull the vehicle by the tether, or attempt to maneuver the ROV using the tether. This action will incur a 2-minute penalty per occurrence.
4. In the event that a vehicle is inadvertently interfered with during a competition, or a malfunction of a vehicle's parts (i.e., the motor) occurs that is beyond the design and construction, the lead pool judge will have the authority to provide the team time to fix their vehicle and to allow them to compete later.

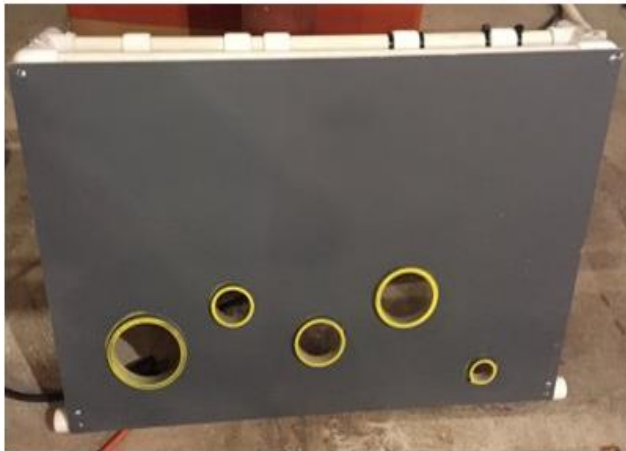
### **Finesse Challenge**

The details have been released for the Finesse Challenge. You can review the details online at [http://www.seaperch.org/challenge\\_rules](http://www.seaperch.org/challenge_rules). Please be sure to check this site for updates, as it will have the most updated information. Also, check out the rules blog page, [http://www.seaperch.org/challenge\\_blog](http://www.seaperch.org/challenge_blog), for updates and Q&A on various topics with Chris Hansen, the technical director of SeaPerch. Now onto the details...

## TASK 1

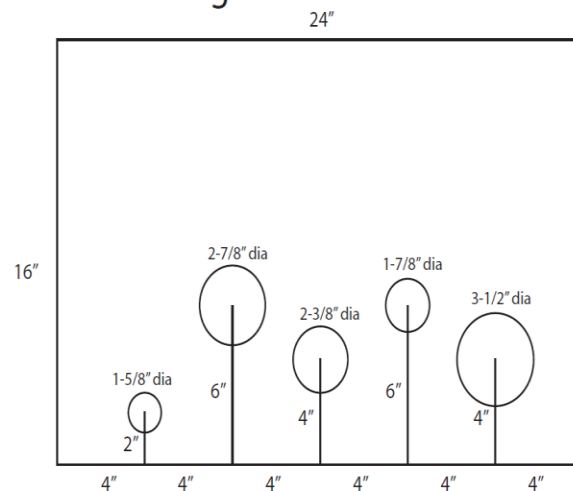
The first task will be a series of 5 targets that will have to be manipulated by poking the activation pad. The activation pad will need to be depressed up to 3" in order to toggle the target. The targets will range in size and therefore difficulty. The inner diameter of the targets is as follows: 1", 1-1/2", 2", 2-3/8", 3".

The heights of the target centers will vary from 2" to 6". Each target center is separated by 4"



Target	Length	Qty
16 x 24 Wht Sintra		1
1/2" PVC Pipe	22"	4
1/2" PVC Pipe	14"	2
1/2" PVC Pipe	12"	2
1/2" PVC Pipe	1"	5
1/2" PVC Pipe	8"	2
1/2" PVC 3-way Elbow		2
1/2" PVC 4-way Tee		2
1/2" PVC sling Tee		5
1/2" PVC Tee		2
1/2" PVC Elbow		5
1/2" Slice of 3" PVC		1
1/2" Slice of 2.5" PVC		1
1/2" Slice of 2" PVC		1
1/2" Slice of 1.5" PVC		1
1/2" Slice of 1" PVC		1
Primer Grey paint		1
Plastic shim		10
#6 screws		10
White paint		
Orange paint		
Screw McMaster P/N 92325A301		
Epoxy		

## Task 1 "Targets"



## TASK 2

The second task will be a series of 5 rods that will have to be lifted and placed into a series of vertical holders of different sizes.

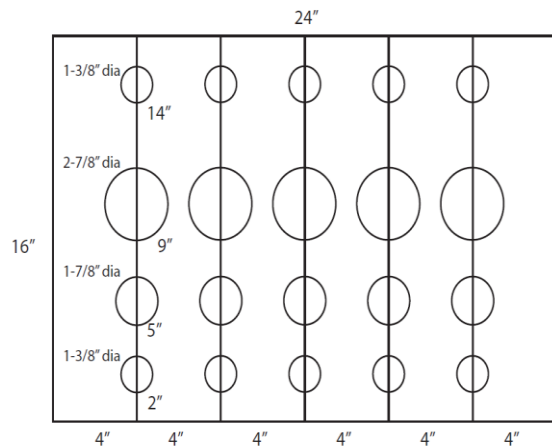
Each rod consists of a 6" length of 1/2" PVC pipe with a polypropylene rope loop on one end and a small weight in the other. This design allows the rod to stand up when left freestanding in the water. The holder from which operators will have to retrieve the rings is constructed of 1" PVC pipe and will leave at least the top 2" of the rod and the entire loop exposed.

Operators will have to position the rods in one of three Vertical pipe sections with the following inner diameters: 1", 1 1/2", 2-3/8". More points are given for placing the rod in the smaller pipe.



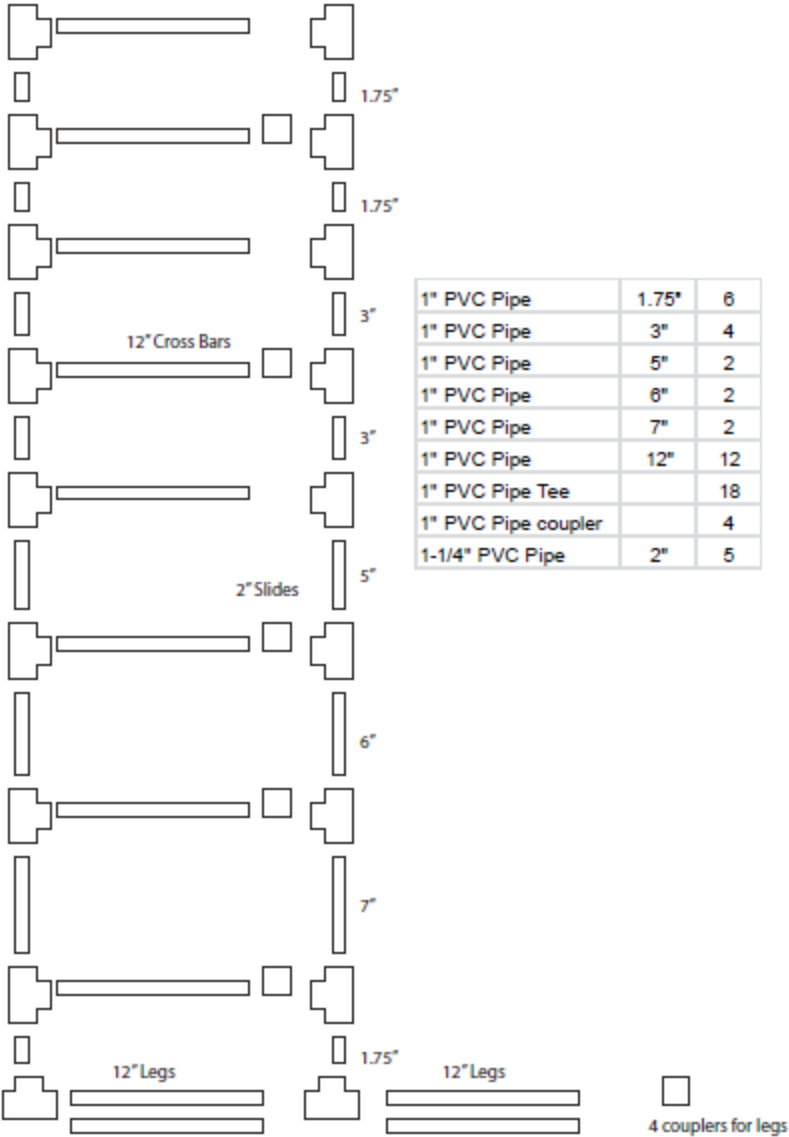
Pipes	Length	Qty
16 x 24 Wht Sintra		1
1/2" PVC Pipe	6	5
1" PVC Pipe	5	10
2.5" PVC	5	5
1.5" PVC	5	5
Primer Grey paint		
White paint		
Orange paint		
1/4" Poly line		

Task 2 "Pipes"



TASK 3

The third task will require teams to actuate a device to the side. A ladder or abacus type device will stand vertical in the water. The device is made of 1" PVC pipe with the rungs at different distances apart, starting at 3-1/2" to 7" apart. On 5 of those rungs will be a PVC collar made of 1-1/4" PVC pipe. This collar will be 2" in length. Not all rungs will have collars on them to be actuated and will serve as guard rungs for the collars. These collars will have to be slid from one side of the rung to the other in order to be placed in the brightly painted area on the rung. The direction that the collar needs to be actuated will alternate from collar to collar.



### **The Sintra Board**

For the course builders out there, you will need a piece of 16 x 24 sintra board for the target task and the pipe task. I have posed a question to the national folks about the thickness of the board.

Sintra Board Purchase: [www.eplastics.com](http://www.eplastics.com) (1/4" thick)

If you have any questions or concerns, please let us know.

Sincerely,

Indiana SeaPerch