

ROBOTX

RobotX 2026 | TeamTime #5



ROBOTX CHALLENGE 2026

Singapore | November 8 - 14, 2026



15-October-2026

robotx.org

AGENDA

REMINDERS

Deadlines, Deliverables

EVENT UPDATES

Event Expectations, Travel, Venue, Shipping

COMPETITION UPDATES

Proof of Readiness, Pilot/UAV Licensing, Scoring Overview

RESOURCES & QUESTIONS

THE TEAMS

22 TEAMS

10 COUNTRIES

5 FIRST-YEAR TEAMS



ADVANCING
SCIENCE
TECHNOLOGY
AND ART



EMBRY-RIDDLE
AERONAUTICAL
UNIVERSITY



FLINDERS
UNIVERSITY



FLORIDA
ATLANTIC
UNIVERSITY



GEORGIA
INSTITUTE OF
TECHNOLOGY



INSTITUT
TEKNOLOGI
SEPULUH
NOPEMBER



KOREA
MARITIME &
OCEAN
UNIVERSITY



KYUSHU
INSTITUTE OF
TECHNOLOGY



LAKE
SUPERIOR
STATE
UNIVERSITY



NANYANG
TECHNOLOGICAL
UNIVERSITY
(ARCHIMEDES)



NANYANG
TECHNOLOGICAL
UNIVERSITY
(MECATRON)



NATIONAL
UNIVERSITY
OF SINGAPORE



PONTIFICIA
UNIVERSIDAD
CATÓLICA
DE CHILE



PONTIFICIA
UNIVERSIDAD
CATÓLICA
DEL PERÚ



REPUBLIC
POLYTECHNIC



RMK
ENGINEERING
COLLEGE



SINGAPORE
INSTITUTE OF
TECHNOLOGY



SINGAPORE
UNIVERSITY OF
TECHNOLOGY
AND DESIGN



TONGJI
UNIVERSITY



UNIVERSITY
OF FLORIDA



UNIVERSITY OF
NEWCASTLE
AUSTRALIA



UNIVERSITY OF
LOUISIANA AT
LAFAYETTE

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STAY UPDATED

ALL THINGS ROBOTX

For all the latest information and updates for the competitions season, visit the RobotX website!



robotx.org/2026

DATA SHARING

Join the community-driven project created to increase collaboration between teams and address the never-ending quest for test data. All new teams receive invitations. Contact competitions@robonation.org for questions.



robotx.org/data-sharing/access

DISCORD

Stay connected and updated with the RobotX Discord. Scan the QR code to get started!



JOIN TODAY!

- Scan the QR code
- Select the RobotX role
- Turn on notifications!



robonation.org/discord

TIMELINE

All Teams

UAV Pilots

2026

OCTOBER

SUN	MON	TUE	WED	THU	FRI	SAT
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

2026

NOVEMBER

SUN	MON	TUE	WED	THU	FRI	SAT
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

19 October

Proof of Readiness Deadline
MathWorks Award Submission Deadline
Tech Talk Application Deadline

20 October

Pilot Questions Deadline (UAPL Training Materials)

26 October / 27 October

Pilot UAPL Virtual Training

30 October, 2-3 November

Pilot Theory Test (Local Pilots)
Pilot Assessment (Local Pilots)
UAV Ground Screening & Validation (Local Pilots)

31 October

Travel Stipend Request Deadline

6-9 November

Pilot Theory Test (Overseas Pilots)
Pilot Assessment (Overseas Pilots)
UAV Ground Screening & Validation (Overseas Pilots)

8-14 November

2026 Maritime RobotX Challenge

PROOF OF READINESS

Deadline: 19 October

Submit what you can for review!

16 - USVs Passed

16 - UAVs Passed

2 - UUVs Passed

22 - Comms Passed



robotx.org/2026/por

		ASTA	ERAU	FLIN	FLAU	GTEC	ITSN	KMOU	KYUT	LSSU	NYTU1	NYTU2	NUSB	PUCC	PUCP	REPP	RMKC	SGIT	SUTD	TONG	UFLO	ULLY	UNEW
USV	USV NAME	Crescent	Amber	Blue Ice Boat	Challenger 21	MMR	Blue Atlas	ATC	Blue V	ADT Superstar	USV 2.0	Proton	BMASV 2.0	Catfish	Liberal	RP Turbo Bot	Orion	ADT MLV TAMPADA	MAVUS	Team	Proton 2	MLL USV	Atlas
	USV STATUS	P	P	M	P	P	P	P	P	P	P	R	P	P	P	M	M	P	M	P	P	R	P
	Autonomous Navigation	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒
	Tow Points and Harness	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒
	Lift Points and Harness	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒
	Prop Shrouds	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒
	Manual Control Approach	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒
	Kill Switch Drawings	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒
	Kill Switch-Onboard Works	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒
	Kill Switch-Remote Works	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒
Positive Buoyancy	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	
Mode Indicator	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	
UAV	UAV NAME	Orion	Eden	Amber	Blue Ice Boat	StarCraft	Blue Atlas	Team	Blue V	MMR	USV 2.0 (Manual)	Proton	Adaptor 2.0	Challenger	Utop	RP Superstar	REVELATION	Opinion "Baz"	MAVUS	Team	Proton 2	MLL USV	Adaptor
	UAV STATUS	P	P	P	R	P	P	M	M	M	P	P	P	P	P	P	M	M	M	P	P	M	P
	UAV Info Package	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒
	Flight Pattern 1 Demo-Manual	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒
	Flight Pattern 1 Demo- Auto	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒ </

- No Submission
 R Received, Under Review
 M Missing Information
 P Pass



MATHWORKS SIMULATION AWARD

Introduction

The MathWorks Simulation Award recognizes teams demonstrating innovative and effective use of MATLAB and Simulink in designing their USV's, UUV's or UAV's for the RobotX 2026 competition.

***OPTIONAL**

Award Prize and Recognition

- 1st Place - \$1000
- 2nd Place - \$750
- 3rd Place - \$250

Deliverable Requirements | Due 19 October 2026

- 5-minute video showcasing how MATLAB or Simulink was used to solve a problem faced.
- Team introduction - high level software and strategy overview
- Explain the problem faced and the team's solution using MathWorks tools
- Demonstrate solution(supported with plots, metrics, videos, etc)
- Reflection and feedback on the tools

Contact Abhishek Shankar through email (abshanka@mathworks.com) or Discord for any questions!

TECH TALK APPLICATION

***OPTIONAL**

Introduction

The 2026 Maritime RobotX Challenge Tech Talk Series, hosted by RoboNation, brings together students, teams, industry professionals, sponsors, partners, and volunteers to share knowledge and insights in maritime autonomy and robotics. The series highlights emerging technologies, real-world experiences, and opportunities for collaboration while helping students build connections from across industries. Tech Talks strengthen the education-to-workforce pipeline by preparing students for careers and enabling professionals to mentor and shape the next generation of talent and technology.

Available Slots

- 9, 11, 12, 13 November

Deliverable Requirements | Due 19 October 2026

- Session Topic
- Session Short Summary

Tech Talk Series slots are limited. Applications will be reviewed and we will reach out to you once selected. We encourage all interested participants to apply for consideration.



IN-PERSON DELIVERABLES

Design Strategy Presentation

Prepare a presentation with a concise description of your team's strategic vision, and how the vehicle design compliments your goals.

Time: 30 min.

System Assessment

Prepare your SoS to be inspected by judges to assess technical design, technical innovation, and craftsmanship of the design.

Time: 30 min.

TIP: Define your team's competition strategy and how that influenced your design choices, testing, and overall approach.

**Delivered in-person during the competition:
10-11 November**

15-October-2026



Questions? Submit on Discord.

robotx.org

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RESOURCES & QUESTIONS

WEATHER (HAZE CONSIDERATIONS)

Singapore is currently experiencing high levels of pollution. While there is an expectation that this may be reduced in November, organizers are working on contingency planning to allow the event to proceed.

How to plan your outdoor activities during haze



For immediate outdoor activities

Use the 1-hour PM_{2.5} readings and personal guide[^]
The 1-hour PM_{2.5} concentration indicates the current air quality. When planning activities within the next few hours, the public are advised to refer to the latest 1-hr PM_{2.5} readings before proceeding.

BAND 1 (NORMAL) (0 - 55 µg/m³)	BAND 2 (ELEVATED) (56 - 150 µg/m³)	BAND 3 (HIGH) (151 - 250 µg/m³)	BAND 4 (VERY HIGH) (≥251 µg/m³)
CONTINUE with normal activities	REDUCE strenuous outdoor activity for the next hour Vulnerable persons* – AVOID strenuous outdoor activity for the next hour	AVOID strenuous outdoor activity for the next hour Vulnerable persons* – AVOID all outdoor activity for the next hour	MINIMISE all outdoor activity for the next hour Vulnerable persons* – AVOID all outdoor activity for the next hour

* This guide is not intended to be prescriptive. For the general population, symptoms that may arise from short-term exposure such as throat or eye irritations are expected to resolve after withdrawing from the exposure.
* Vulnerable persons include the elderly, pregnant women, children, and persons with chronic lung disease or heart disease.



For next-day activities

Use the 24-hour PSI forecast and health advisory
The 24-hour PSI forecast⁺ and the corresponding health advisory should be used when planning for next-day outdoor activities.

24-HOUR PSI FORECAST	GOOD (0 - 50)	MODERATE (51 - 100)	UNHEALTHY (101 - 200)	VERY UNHEALTHY (201 - 300)	HAZARDOUS (>300)
Healthy Persons	Normal activities	Normal activities	REDUCE prolonged or strenuous outdoor physical exertion	AVOID prolonged or strenuous outdoor physical exertion	MINIMISE outdoor activity
Elderly, Pregnant Women, Children	Normal activities	Normal activities	MINIMISE prolonged or strenuous outdoor physical exertion	MINIMISE outdoor activity	AVOID outdoor activity
Persons with Chronic Lung Disease, Heart Disease	Normal activities	Normal activities	AVOID prolonged or strenuous outdoor physical exertion	AVOID outdoor activity	AVOID outdoor activity

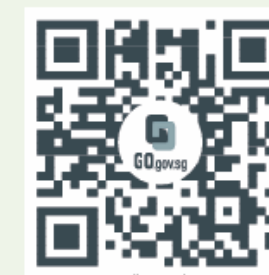
+ Available when air quality is in the Unhealthy range.
The impact of haze is dependent on one's health status, PSI, and the duration and intensity of outdoor activity. Reducing outdoor activities and physical exertion can help limit the ill effects. Persons who are not feeling well should seek medical attention.

Explanatory notes: **REDUCE** (do less), **MINIMISE** (do as little as possible), **AVOID** (do not do), **PROLONGED** (continuous exposure for several hours), **STRENUOUS** (involving a lot of energy or effort)

15-October-2026

Current air quality readings and more information:

- www.haze.gov.sg or www.nea.gov.sg
- myENV mobile app



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EVENT SCHEDULE

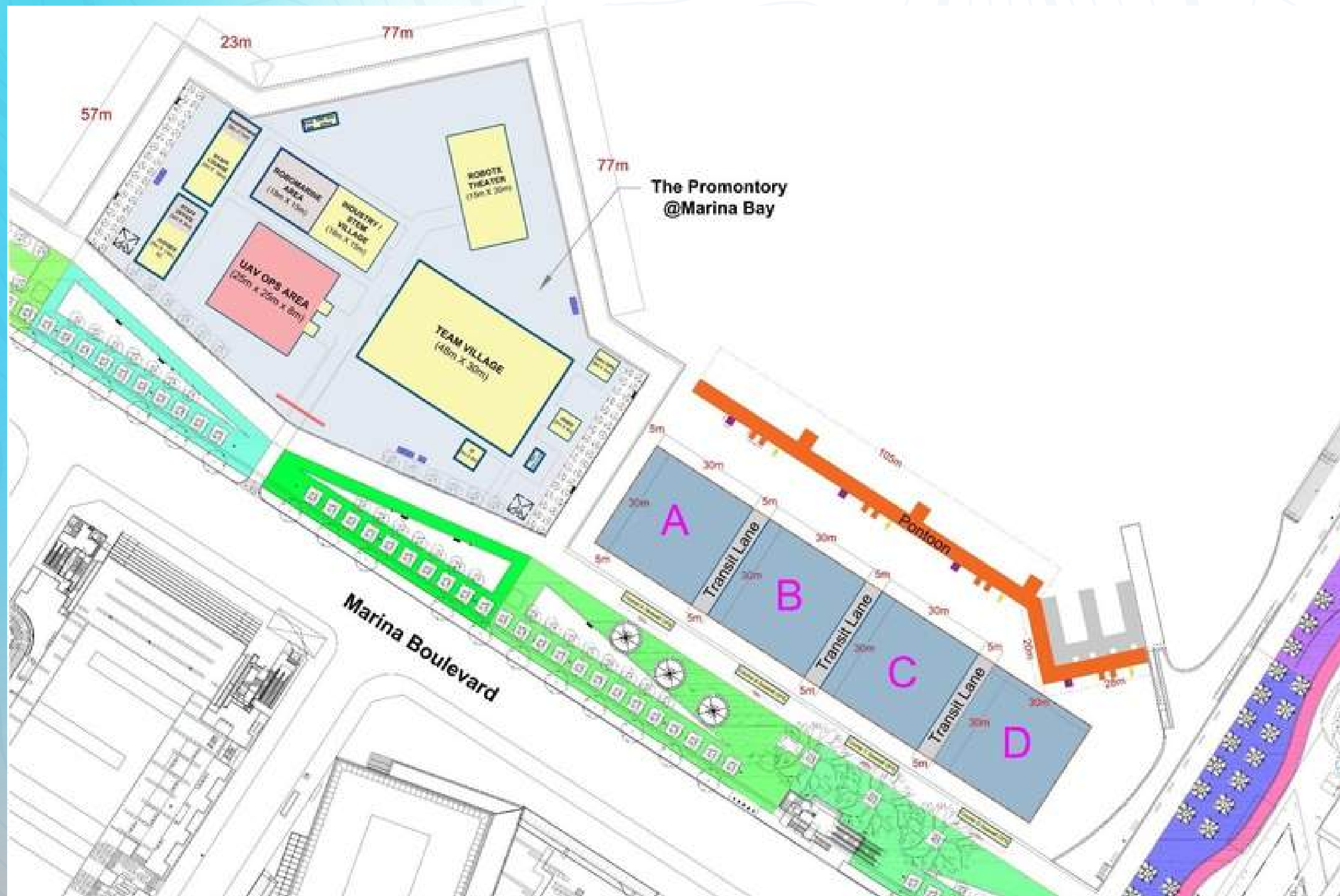
Mandatory for UAV Pilots

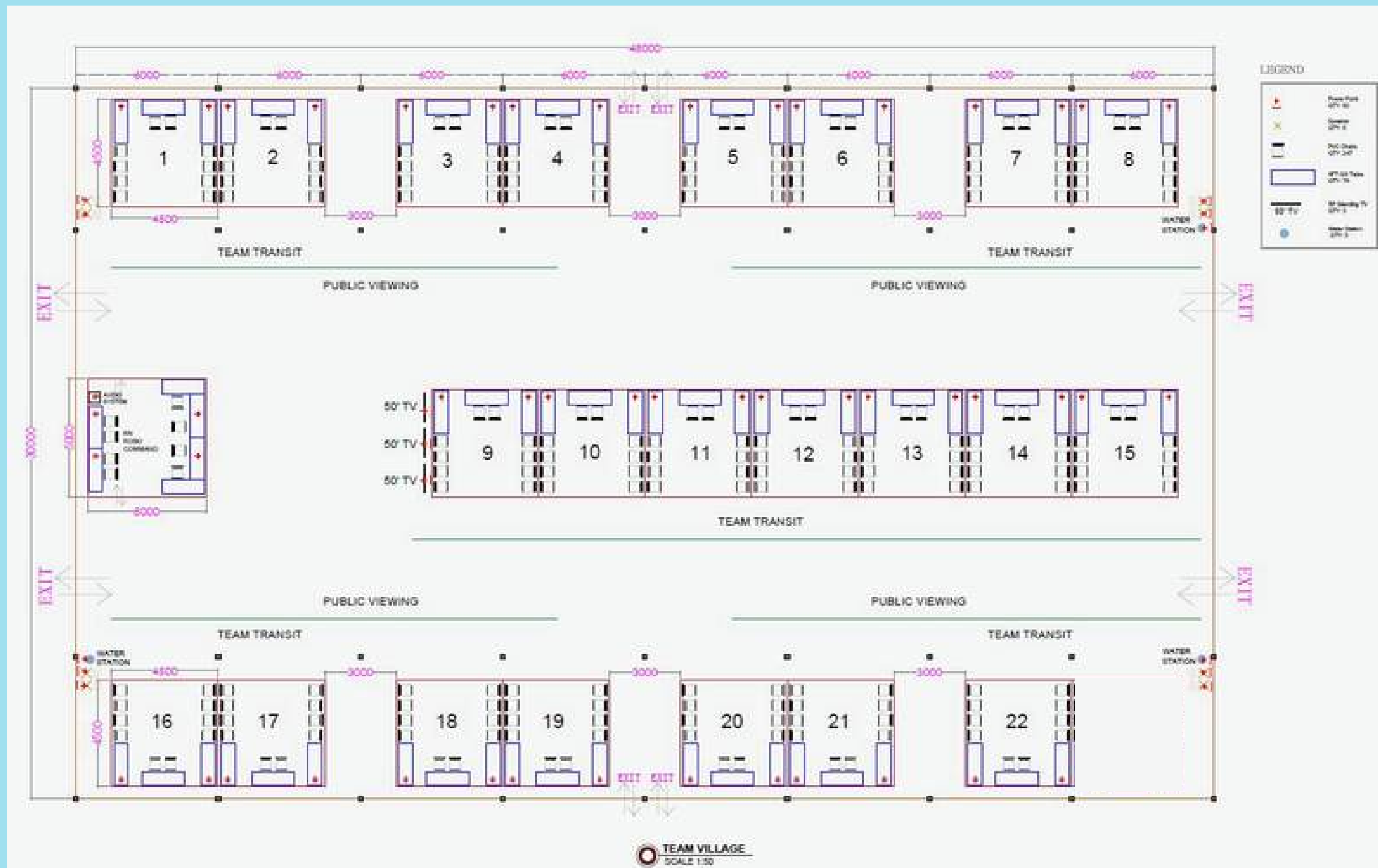
Media Day

Distinguished Visitors

NOV 06 FRI	NOV 07 SAT	NOV 08 SUN	NOV 09 MON	NOV 10 TUE	NOV 11 WED	NOV 12 THU	NOV 13 FRI	NOV 14 SAT
Pilot Theory Test (Overseas Pilots)	Pilot Assessment & Ground Screening (Overseas Pilots)	0930-1000 Team Check-in 1000-1200 Team Orientation (Mandatory) 1200-1700 Team Move-In Tech Talks 1300-1700 UAV Flight Screening & Validation 1700-1900 Team Networking Social	0800-1230 Safety Checks (USV/UUV) 0800-1700 UAV Flight Screening & Validation 1330-1800 Autonomy Challenge Courses Open for PRACTICE 1400-1630 Judges' Training	0800-1230 Autonomy Challenge Practice Courses Open for PRACTICE Design Presentations / Systems Assessments 1230-1330 Catered Lunch 1300 Flag-Off Opening & Group Photo 1400-1800 Autonomy Challenge Courses Open for PRACTICE Design Presentations / Systems Assessments 1800 Team Meeting (Mandatory)		0800-1230 Autonomy Challenge Courses Open for SCORING & PRACTICE 1230-1330 Courses Closed 1330-1800 Autonomy Challenge Courses Open for SCORING & PRACTICE		0800-1200 Autonomy Challenge Courses Open for FINALS PRACTICE 1200-1300 Courses Closed 1300-1600 Autonomy Challenge Courses Open for FINALS 1800-1900 Awards

OVERALL LAYOUT

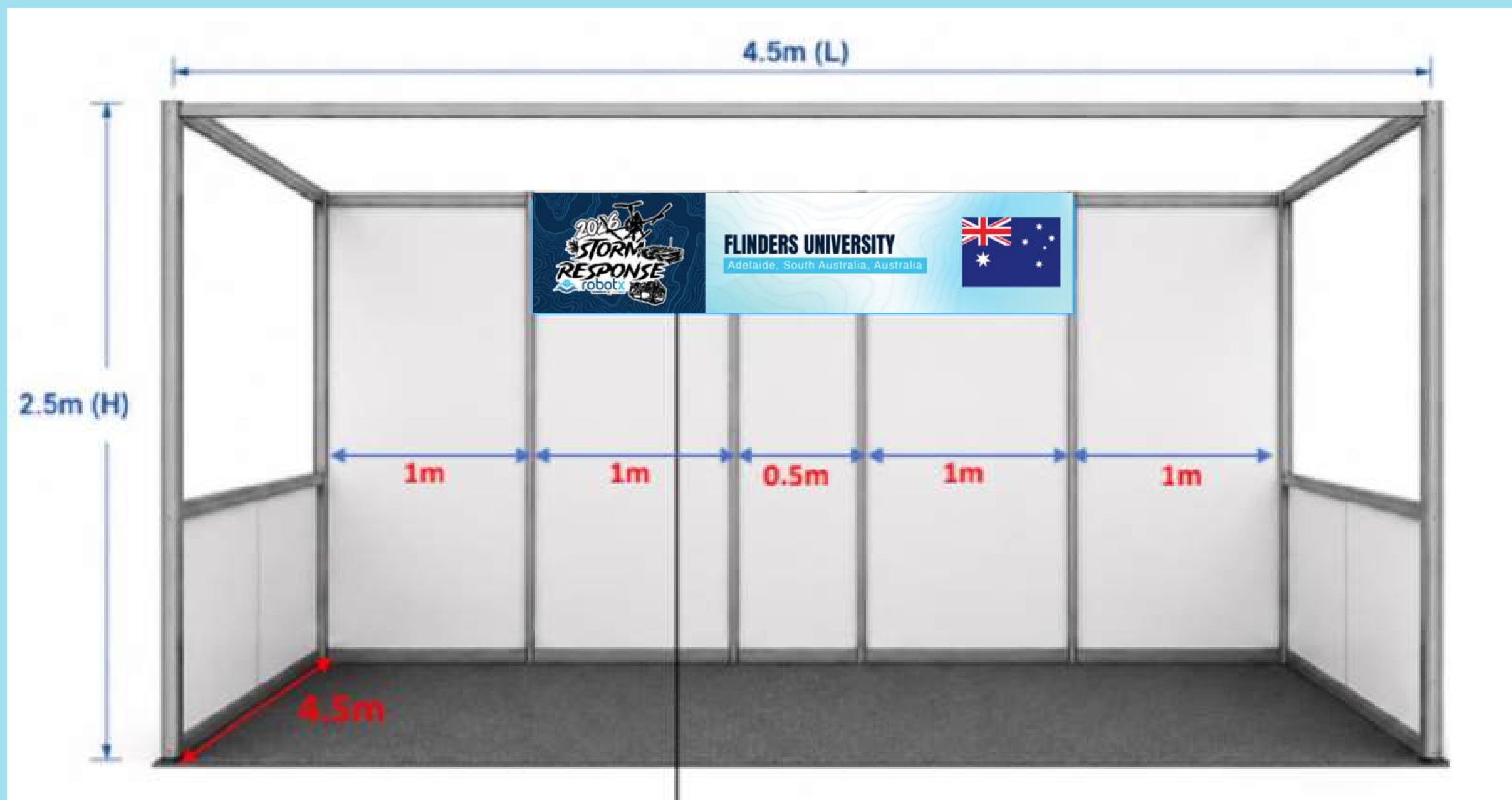




**Team Assignments
will be available
upon arrival at
Team Check-in.**

TEAM BOOTHS

BOOTH - 4.5m (L) x 2.5m (H) / 14.76 ft (L) x 8.2ft (H)



BOOTHS INCLUDE:

3 Tables

10 Chairs

**1 Electrical Outlet - Type G
(220 VAC / 50 Hz)**

1 Power Strip - Type G



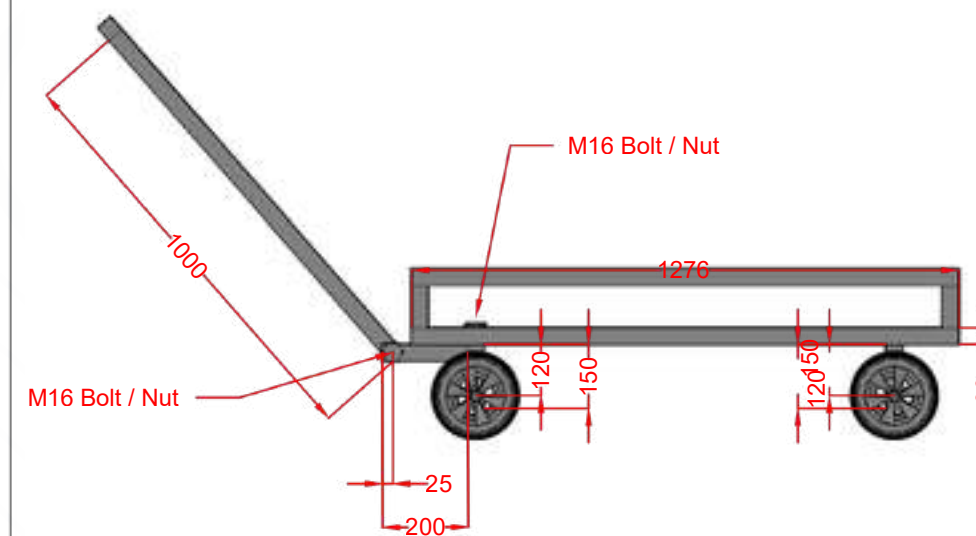
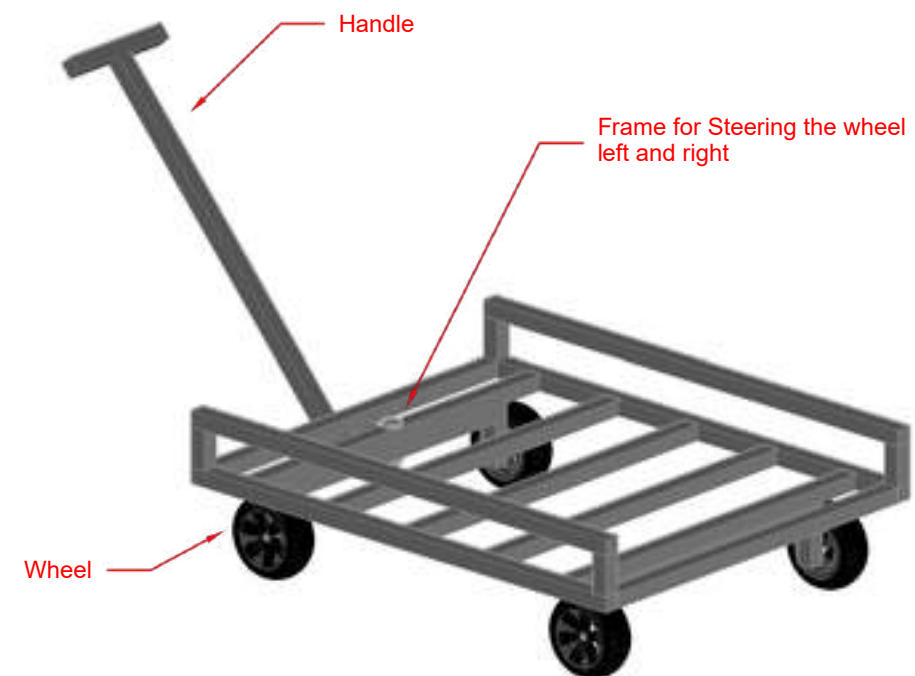
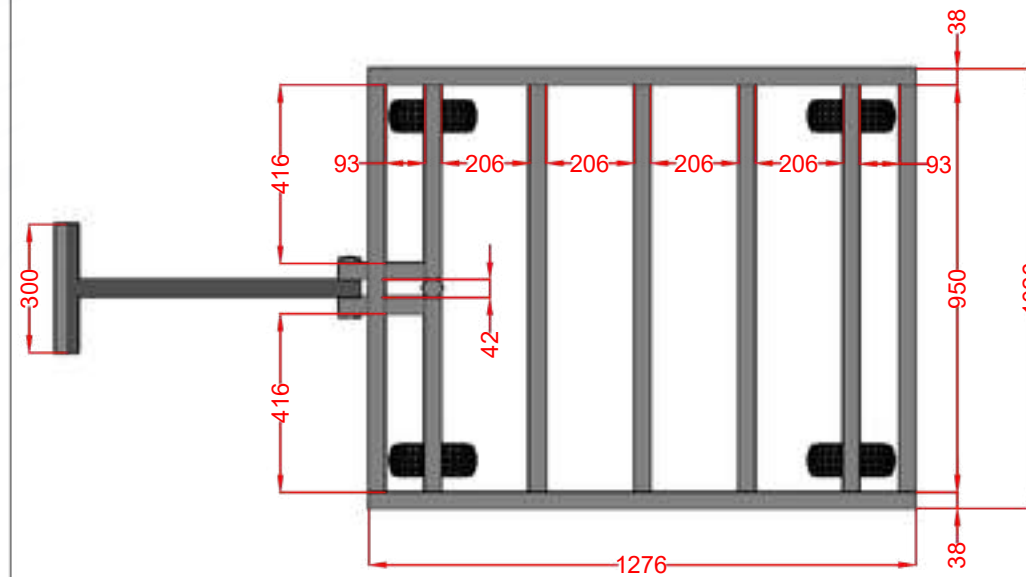
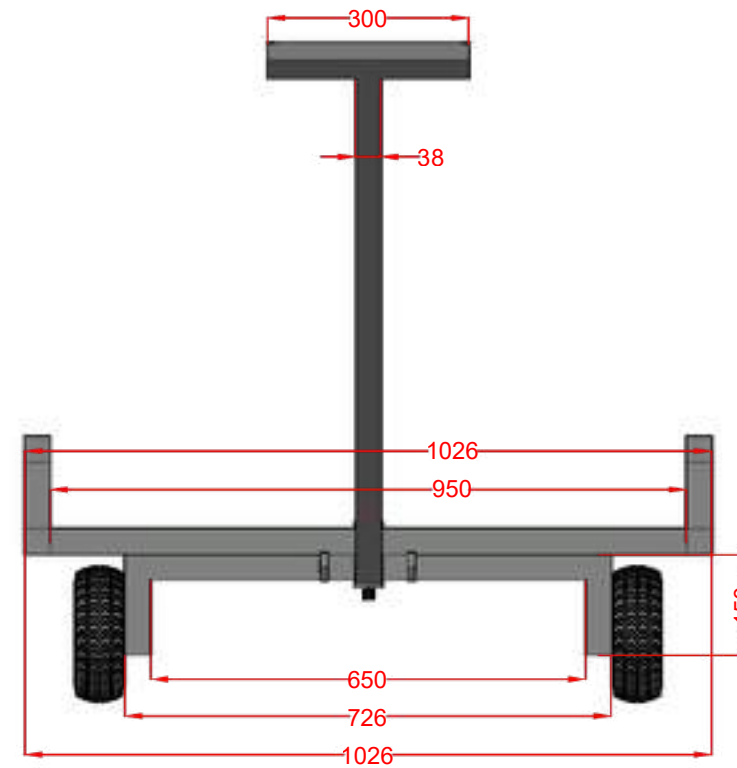
COURSE LAYOUT



CARTS AVAILABLE TO SHARE:



CARTS



TRAVEL READINESS

Valid Passport

- All travelers regardless of age, must hold a valid individually issued travel and must ensure their passport has a minimum validity of 6 months.
- Keep your travel documentation, identification on your person at all times.

Singapore Laws & Rules

- Gum is not allowed!
- **Medications must be cleared before bringing into Singapore.**
<https://www.hsa.gov.sg/travelling-with-medication-and-medical-devices/personal-medications/>

- **Travel Advice Article**
<https://www.goabroad.com/articles/study-abroad/singapore-laws-to-know-before-you-go>


Singapore Arrival Card

- All foreign visitors are required to submit the **SG Arrival Card** within 3 days (including day of arrival) before arriving to Singapore.
<https://eservices.ica.gov.sg/sgarrivalcard/>

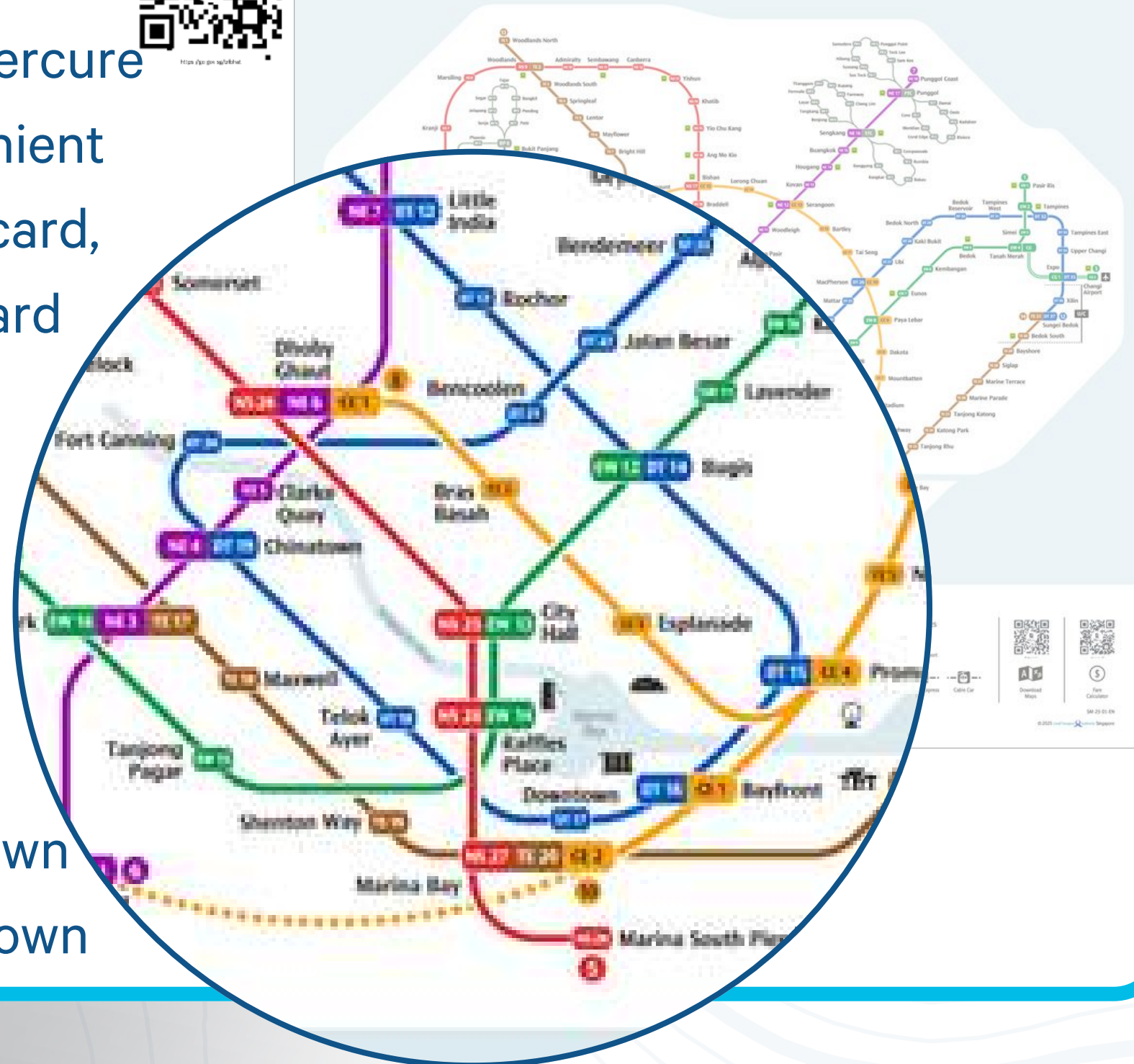

TRANSPORTATION

TRAIN (MRT)

- MRT Lobby under Mercure
- Inexpensive / Convenient
- Pay with phone, tap card, Apple Pay or MRT Card (available at kiosks)
- Cannot bring large bags, luggage, or bulky items
- **Hotel:** DT 19 Chinatown
- **Venue:** DT 17 Downtown

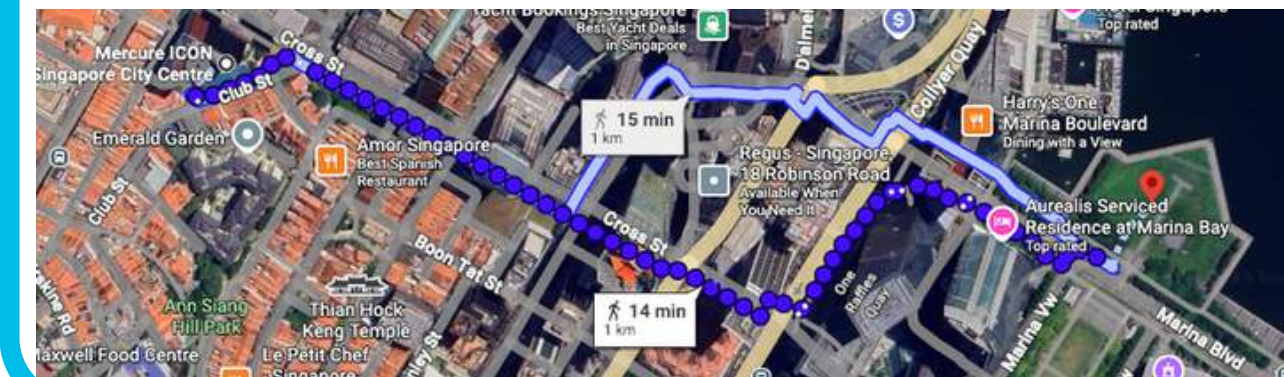


System Map



WALK

- ~15 minute walk, 1.0 km
- Walk above ground or underground pedestrian network



GRAB APP



Apple



Google Play

EVENT REMINDERS

FOOD OPTIONS

- Catered lunch is provided on 10 November.
- There are many **restaurants** and **hawker centre** options within walking distance of the event hotel.
- You also have the option to buy food at local **grocery stores**. Share suggestions on Discord.

SELF CARE

- Avoid **SUNBURN**
Bring sunscreen, wear a hat & long-sleeved shirt.
- **Hydrate, hydrate, hydrate!** Refill a reusable water bottle / water will be provided.
- Pace yourselves. Get **rest**.
- Take breaks to hydrate and eat.



Reapply
Sunscreen



Stay
Hydrated!



Wear Hat &
Sunglasses



Take
Breaks



Wear Protective
Clothing

EATING IN SINGAPORE

- **Singapore's Food Culture -**
 - Vibrant, multicultural melting pot blending Chinese, Malay, Indian, Peranakan, and Western traditions into a national obsession.
 - Eating is considered a primary pastime, social glue, and a defining element of Singaporean identity.
 - Budget Conscious: S\$15-S\$30 (\$11-\$22 USD)/day
- **Open-Air Hawker Centres:** Hawker Centers (open air food courts) were officially inscribed on the UNESCO Representative List of the Intangible Cultural Heritage of Humanity in 2020.
- **Grocery Stores / Convenience Stores**
- **Vending Machines** - juice, crepes, etc.



WEATHER PROTOCOLS

Courses Remain Open:



Courses Close:

LIGHTNING ⚡ ⚡ ⚡

➤ All tents must be cleared, participants must shelter in a nearby building or back to hotel.

Weather Forecast:

8	9	10	11	12	13	14
						
85° 79°	86° 80°	84° 79°	85° 78°	84° 79°	85° 79°	84° 78°

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Pilot/UAV Licensing, Scoring Overview

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UAV PILOT READINESS

UAPL LICENSE PREPARATION

Introduction

Before being granted permission to operate a UAV during the RobotX Challenge, all teams must complete the following:

- All UAV pilots must obtain an Unmanned Aircraft Pilot License (UAPL).
- Each UAV must pass flight certification.

RoboNation has partnered with Garuda Robotics (GR) to facilitate completion of these requirements.

RoboNation will coordinate transportation for pilots and UAVs to and from the event venue for overseas teams.

Local teams must arrange their own transportation to and from the practical assessment site.

THEORY TEST

Accounts:

- StudyWorks (GR Responsibility)
- CAPELS (Pilot Responsibility)

Test Dates:

- 30-Oct - Singapore Pilots
- 06-Nov - Overseas Pilots

*Review Study Materials & Post questions on Discord (20-Oct)

PRACTICAL ASSESSMENT

Assessment Dates:

- 02-Nov - Singapore Pilots
- 07-Nov - Overseas Pilots

*Bring UAV to Flight Assessment for Ground Screening

FLIGHT SCREENING

Flight Screening Dates:

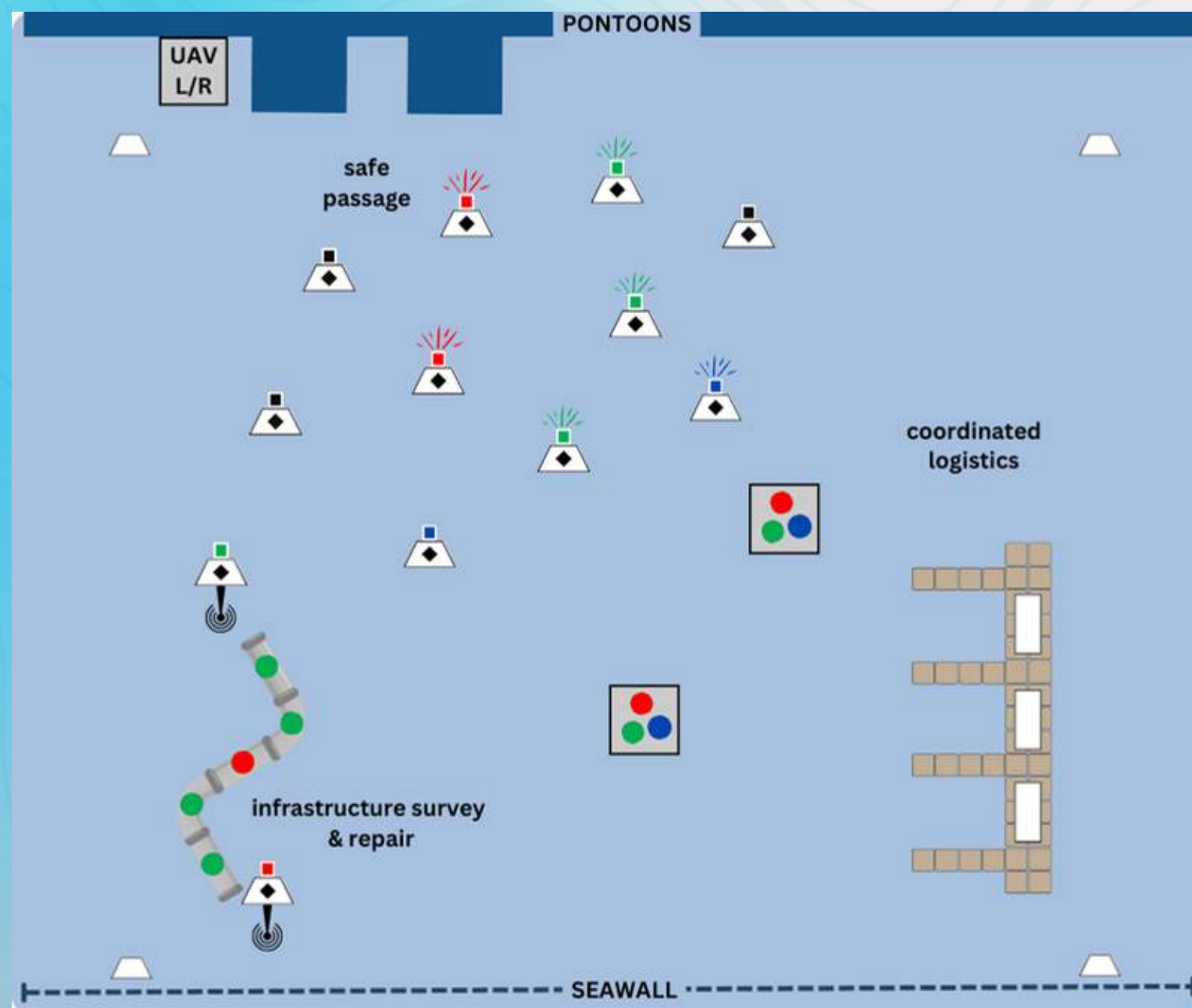
- 03-Nov - Singapore Pilots
- 08-09-Nov - Overseas Pilots

UAPL PROCESS

After passing both Theory Test and Practical Assessment, pilots must apply for their UAPL through their CAPELS account.

Additional details available in the Participant Information Pack

TASKS OVERVIEW



Questions? Submit on Discord.

Communications & Reporting

All systems must be capable of receiving and transmitting messages between each system and the competition server (RoboCommand).

Mission Task 1: Safe Passage

The System of Systems must discover, report, and navigate a safe pathway to the survey and relief mission.

Mission Task 2: Infrastructure Survey & Repair

The UUV must locate, survey, and “repair” an underwater pipeline, then report status/results and request resource delivery from a support UAV.

Mission Task 3: Coordinated Logistics

The System of Systems must find a safe docking area, complete tasking in the bay, and request resource delivery support from a support UAV.

Mission Task 4: Dynamic Incident Response

The System of Systems must demonstrate the ability to adapt to changing conditions or mission priorities.

HANDBOOK CHANGE LOG

15-October-2026



robotx.org/handbook

2026-08-06	- Sections 3.3.1 / 5.3.3 Section 3.3.2 Section 3.3.3 Section 3.3.4	- Updated UAV requirements and added UAV Proof of Readiness criteria based on latest inputs from host nation leads. - Updated Task 1 content to clarify based on team questions. This includes emphasizing the requirement to circle the flashing blue and solid blue lights at the start/end of the attempt. Also updated the task example image. - Updated Task 2 imagery and text based on questions and feedback from teams. - Updated Task 3 imagery and text to clarify bay numbering scheme.
2026-08-07	Section 3.1.5 Section 3.4 / Team ID List	- Published Communications Proof of Readiness requirements - Published Communications Protocol and Team ID List
2026-09-14	Section 3.5.2	Updated task build specifications for light beacon
2026-09-29	Section 3.5 Section 5.3, 5.3.1, 5.3.2	- Updated pinger timing image - Updated underwater pipeline node quantity - System requirements: - RoboCommand - General safety requirements - Commercial thrusters with integrated shrouds may be used as is. - Real-Time Kinematic positioning systems allowance
2026-10-15	Section 4: Scoring & Awards	Section Published

SCORING OVERVIEW

Design Documentation

Design Documentation	Points Possible
Technical Design Report	200
Website	180
Team Introduction Video	120
Design Presentation	180
System Assessment	180
Total Potential Points	860

Cross-cutting Capabilities

Action Required or Observed	Points Possible
SoS must successfully start a run.	25
UAV must autonomously take off and enter the course boundaries	25
UAV must autonomously leave the course boundaries and land on	25
Uncrewed system strikes any course element.	-10
Maximum Possible points for Cross-cutting Challenges	75

SCORING: SAFE PASSAGE

Core Tier

Action Required or Observed	Points Possible
SoS activates challenge by sending successful heartbeat messages (once per run).	25
USV reports correct ENTRY buoy.	10
USV reports correct EXIT buoy.	10
USV circles correct ENTRY buoy in clockwise direction.	25
USV circles correct EXIT buoy in counter-clockwise direction.	25
USV reports correct locations for detected FLASHING GREEN buoys. Points are awarded per correctly reported buoy (up to 4).	40
USV reports correct locations for detected FLASHING RED buoys. Points are awarded per correctly reported buoy (up to 4).	40
USV must successfully navigate the buoy field after correctly circling the ENTRY buoy, passing with the GREEN buoys to PORT of the vessel.	25
USV must successfully navigate the buoy field after correctly circling the ENTRY buoy, passing with the RED buoys to STARBOARD of the vessel.	25
USV is granted a bonus for correctly completing ALL aspects of the challenge successfully (reporting all buoys and completing all behaviors).	100
Maximum Possible Points for Safe Passage at the Core Tier	325

Advanced Tier

Action Required or Observed	Points Possible
SoS activates challenge by sending successful heartbeat messages (once per run).	25
UAV reports correct ENTRY buoy.	25
UAV reports correct EXIT buoy.	25
USV circles correct ENTRY buoy in clockwise direction.	100
USV circles correct EXIT buoy in counter-clockwise direction.	100
UAV reports correct locations and states for detected buoys. Points are awarded per correctly reported buoy (up to 8).	200
After correctly circling the ENTRY buoy, if the USV successfully passes ANY of the GREEN buoys to PORT of the vessel it will be awarded partial credit for attempting the challenge.	25
If the USV successfully navigates the buoy field after correctly circling the ENTRY buoy, passing ALL GREEN buoys to PORT of the vessel, it is awarded an additional points.	100
After correctly circling the ENTRY buoy, if the USV successfully passes ANY of the RED buoys to STARBOARD of the vessel it will be awarded partial credit for attempting the challenge.	25
If the USV successfully navigates the buoy field after correctly circling the ENTRY buoy, passing ALL RED buoys to STARBOARD of the vessel, it is awarded an additional points.	100
The SoS is granted a bonus for correctly completing ALL aspects of the challenge successfully (reporting all buoys and completing all behaviors).	200
Maximum Possible Points for Safe Passage at the Advanced Tier	925

Disruptive Tier

Action Required or Observed	Points Possible
Complete ALL Advanced Tier Tasks	925
UAV is awarded points for each correctly reported buoy state change (up to 2).	100
The SoS is granted an additional bonus for correctly completing ALL aspects of the challenge successfully AND adapting to changes in RED/GREEN buoys.	200
Maximum Possible Points for Safe Passage at Disruptive Tier	1225

SCORING: INFRASTRUCTURE SURVEY AND REPAIR

Core Tier

Action Required or Observed	Points Possible
SoS activates challenge by sending successful heartbeat messages (once per run).	25
The SoS must report the correct starting point for the survey, indicated by the buoy with the GREEN color indicator and active acoustic pinger.	25
UUV must survey the pipeline and report the light sequence in the CORRECT order.	150
The UUV must demonstrate the ability to change the color of the "damaged" segment from RED to GREEN .	250
Maximum Possible Points for Infrastructure Survey and Repair at the Core Tier	450

Advanced Tier

Action Required or Observed	Points Possible
Complete all parts of the Core Tier	450
The UUV is awarded points if it reports the CORRECT resource delivery location AFTER completing the pipeline repair.	25
The UAV must demonstrate receipt of tasking via Heartbeat message indicating CORRECT delivery location.	25
The UAV earns partial credit for successfully delivering a resource canister to ANY colored circle.	50
The UAV earns additional points for successfully delivering a resource canister to the CORRECT colored circle.	150
Maximum Possible Points for Infrastructure Survey and Repair at the Advanced Tier	700

Disruptive Tier

Action Required or Observed	Points Possible
Complete all parts of the Core Tier	450
The UUV is awarded points if it reports the CORRECT resource color request AFTER completing the pipeline repair.	25
The UUV is awarded points if it reports the CORRECT resource delivery location AFTER completing the pipeline repair.	25
The UAV must demonstrate receipt of tasking via Heartbeat message indicating CORRECT resource request color.	25
The UAV must demonstrate receipt of tasking via Heartbeat message indicating CORRECT delivery location.	25
The UAV earns partial credit for successfully retrieving ANY COLOR resource canister.	50
The UAV earns additional points for successfully retrieving the CORRECT color resource canister.	100
The UAV earns partial credit for successfully delivering a resource canister to ANY colored circle.	50
The UAV earns additional points for successfully delivering a resource canister to the CORRECT colored circle.	300
Maximum Possible Points for Infrastructure Survey and Repair at the Disruptive Tier	1050

SCORING OVERVIEW

COORDINATED LOGISTICS

Core Tier

Action Required or Observed	Points Possible
SoS activates challenge by sending successful heartbeat messages (once per run).	25
The USV earns partial credit for successfully docking in any one of the docking bays as determined by the judges.	50
The USV earns additional points if the bay in which it docked was the correct one as identified by the GREEN color indicator.	100
The USV is awarded points for reporting it has successfully docked. These points are only awarded if the USV has actually docked in the reported bay.	25
The USV must spray water into the RED window until the light changes to GREEN .	150
Maximum Possible Points for Coordinated Logistics at the Core Tier	350

Advanced Tier

Action Required or Observed	Points Possible
Complete all parts of the Core Tier	350
The USV is awarded points if it reports the CORRECT resource delivery location AFTER completing the firefighting task.	25
The UAV must demonstrate receipt of tasking via Heartbeat message indicating CORRECT delivery location.	25
The UAV earns partial credit for successfully delivering a resource canister to ANY colored circle.	50
The UAV earns additional points for successfully delivering a resource canister to the CORRECT colored circle.	150
Maximum Possible Points for Coordinated Logistics at the Advanced Tier	600

Disruptive Tier

Action Required or Observed	Points Possible
Complete all parts of the Core Tier	350
The USV is awarded points if it reports the CORRECT resource color request AFTER completing the firefighting task.	25
The USV is awarded points if it reports the CORRECT resource delivery location AFTER completing the firefighting task.	25
The UAV must demonstrate receipt of tasking via Heartbeat message indicating CORRECT resource request color.	25
The UAV must demonstrate receipt of tasking via Heartbeat message indicating CORRECT delivery location.	25
The UAV earns partial credit for successfully retrieving ANY COLOR resource canister.	50
The UAV earns additional points for successfully retrieving the CORRECT color resource canister.	100
The UAV earns partial credit for successfully delivering a resource canister to ANY colored circle.	50
The UAV earns additional points for successfully delivering a resource canister to the CORRECT colored circle.	300
Maximum Possible Points for Coordinated Logistics at the Disruptive Tier	950

SCORING OVERVIEW

DYNAMIC INCIDENT RESPONSE

Core Tier

Action Required or Observed	Points Possible
The CORRECT system as requested by RoboCommand must acknowledge receipt of the message and break off current tasking.	25
The CORRECT system must transit to the specified location, report arrival to RoboCommand and wait for the "all clear" message from RoboCommand.	100
The CORRECT system must resume mission tasking after receiving the ALL CLEAR message from RoboCommand. The system is not required to resume the exact same tasking; if the SoS determines another mission task is higher priority, the redirected system may proceed to another task.	25
Maximum Possible Points for Dynamic Incident Response at the Core Tier	150

Advanced Tier

Action Required or Observed	Points Possible
The CORRECT system must respond to RoboCommand acknowledging receipt of the keep out zone.	25
The CORRECT system must complete the run without entering into the keep out area to earn points.	225
If the system enters into the keep out zone at any time during the run, the system is no longer eligible to earn points and will be penalized for entering the space.	-25
Maximum Possible Points for Dynamic Incident Response at the Advanced Tier	250

Disruptive Tier

Action Required or Observed	Points Possible
The CORRECT system must respond to RoboCommand acknowledging receipt of the keep out zone.	25
The CORRECT system must complete the run without entering into the keep out area to earn points.	425
If the system enters into the keep out zone at any time during the run, the system is no longer eligible to earn points and will be penalized for entering the space.	-25
Maximum Possible Points for Dynamic Incident Response at the Disruptive Tier	450

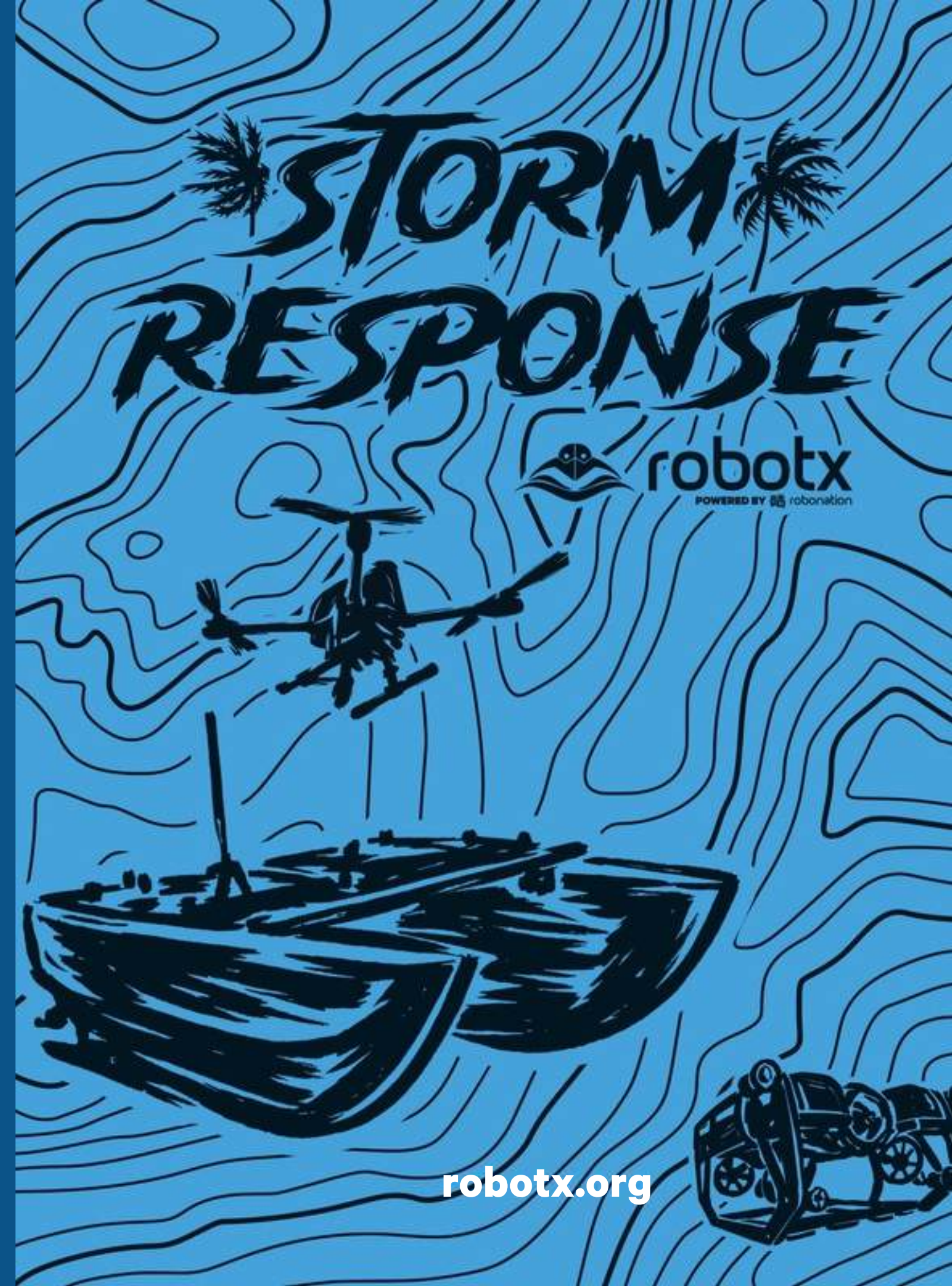
SCORING OVERVIEW

SCORING SUMMARY

Task Name	Max COR	Max ADV	Max DIS
Cross-cutting	75	75	75
Safe Passage	325	925	1225
Infrastructure Survey and Repair	450	700	1050
Coordinated Logistics	350	600	950
Dynamic Incident Response	150	250	450
Design Documentation	860		
Maximum Possible Points	2210	3410	4610

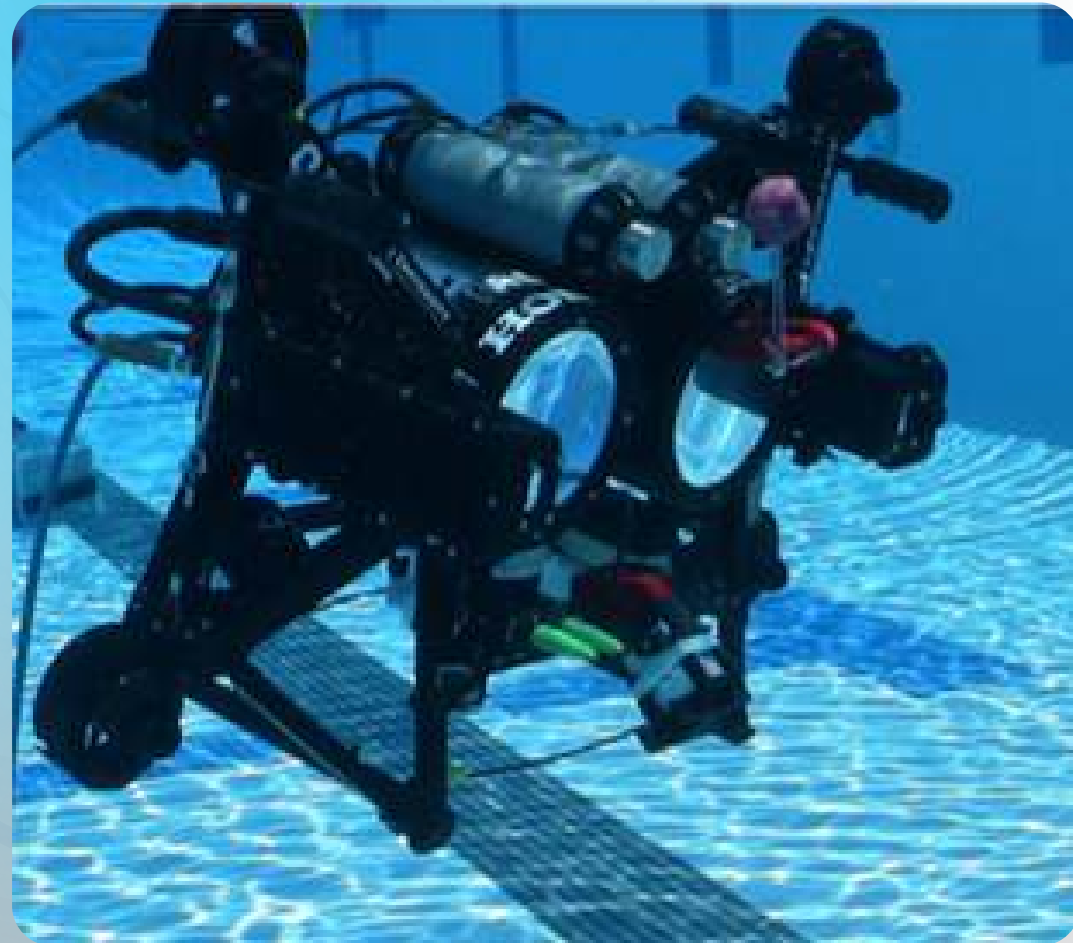
QUESTIONS?

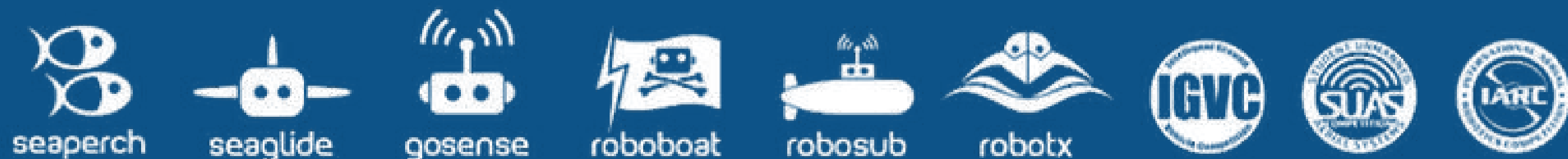
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