ROBOTX TEAM TIME

robotx

Thursday, May 26, 2022 | 7:00 PM Eastern (US & Canada) Standard Time

Welcome 2022 RobotX Teams!

GET STARTED

1. Edit your name to "Name | Team Name"
   E.g., Aamir | University of RobotX

2. Let us know in the chat:

   💬 Animal Encounter:
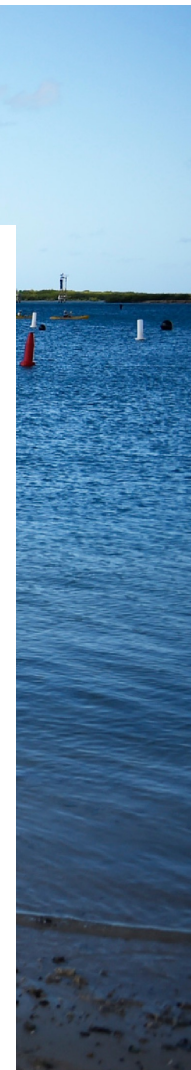   What animal is making the sound you hear?

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AGENDA

[19:00-19:10]	Welcome
[19:10-19:20]	Heartbeat + Communications Protocol
[19:20-19:30]	Task Reporting Specifications
[19:30-19:40]	Pilot Flight Test + UAV Requirements
[19:30-19:40]	Announcements
[19:40-20:00]	Questions?

🎥 ●REC

Aussie Slangs...

- Chook
- Tucker
- Chockers
- Crook
- Sick
- Cooked

Team Handbook Updates

Version 3 in progress…

robotx.org/2022#resources

Update 1   Heartbeat + Communications Protocol

Update 2   Display Specifications (Scan the Code + Wildlife Encounter)

Update 3   Pilot Test and UAV Requirements

Update 4   Scoring Structure

Heartbeat & Communications Protocol

A unique NMEA sentence has been defined for each challenge requiring communication between the vehicle and judges. The vehicle should transmit each message at a rate of exactly once per second (1Hz) to the TD server. The vehicle should always transmit the heartbeat message. In addition to the heartbeat message, the vehicle should transmit task specific messages for the task being actively attempted. This message should be sent with the heartbeat message, not to exceed the 1Hz rate. If any task messages are used for scoring purposes, only the last message for that task transmitted by the vehicle will be considered.

Qualifying Round		AMS transmits heartbeat message. ***Mandatory task.***
Semi-Finals Round		AMS transmits heartbeat message from start of Semi-Finals run. Teams are encouraged to transmit reporting component for the other tasks.
Finals Round		AMS transmits heartbeat message from start of Finals run. Teams are highly encouraged to transmit reporting component for the other tasks.

Display Specifications
Task 4 – Wildlife Encounter

Teams will report the detected wildlife in two ways:

1. Use the Wildlife Encounter message as defined in the Communications Protocol.
2. Provide a Wildlife Encounter graphical display for Judges as detailed in Figure 1. The example Wildlife Encounter display in Figure 2 shows the report of a Crocodile, Platypus, and Turtle georeferenced with North as shown. This display must be available for Judges to see in the Team's shore operations area.
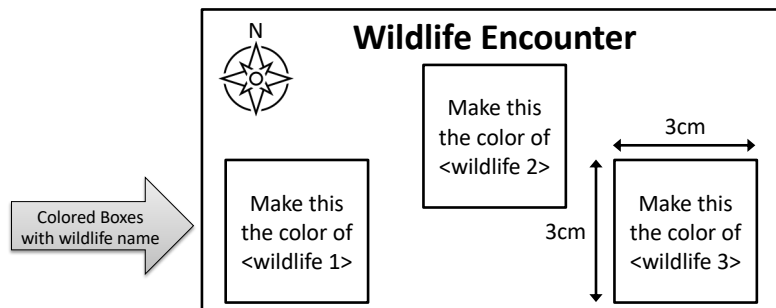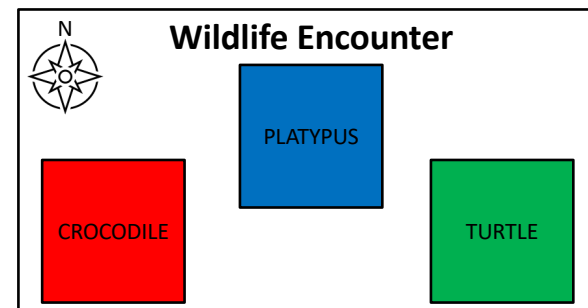
Figure 1

Figure 2

Display Specifications
Task 5 – Scan the Code

Teams will report the detected light sequence in two ways:
1. Use the Scan the Code message as defined in the Communications Protocol.
2. Provide a Scan the Code graphical display as detailed in Figure 3. The example Scan the Code report in Figure 4 shows the report of Red, Green, Blue for the light buoy. The Scan the Code report must be available for judges to see in the Team's shore operations area.
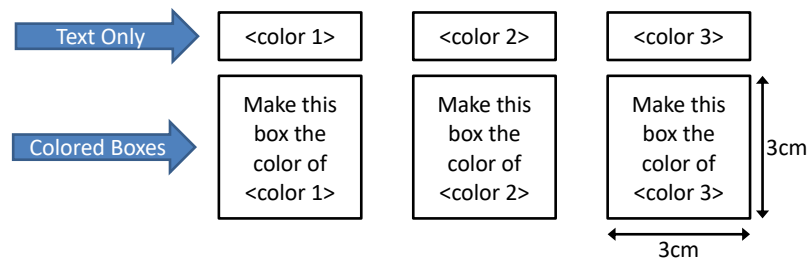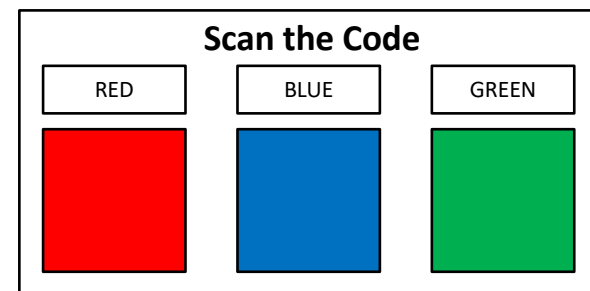
Figure 3

| Text Only | <color 1> | <color 2> | <color 3> |

| Colored Boxes | Make this box the color of <color 1> | Make this box the color of <color 2> | Make this box the color of <color 3> |

3cm
3cm

Figure 4

Scan the Code

| RED | BLUE | GREEN |

Pilot Flight Test + UAV Requirements
Model Aeronautical Association of Australia (MAAA)

Static Safety Inspection	• UAV must pass static safety inspection prior to being cleared for flight • Ensure UAV meets limitations of size/weight • Ensure UAV clears any safety issues related to propellers or hazards • Ensure all sub-systems are properly secured
Pilot Flight Test	• Conducted on first day of competition (November 11) • Required for each licensed pilot to pass prior to being cleared to fly
UAV Requirements	• No more than 7 kg • Ability to float in freshwater • Capable to operate in sunny, rain (light/heavy), and varying wind conditions

Data Sharing
Call for Moderators!

robotx.org/data-sharing

What is Data Sharing?

Centralized Repository

Community Driven

Competition focused

Vision
Acoustics
Mechanical Designs
Electrical Designs

DATA FOR ALL TEAMS

LARGE DOMAIN OF DATASETS

BETTER PLATFORM FOR NEW TEAMS

RobotX TeamTime Meetings

Thursdays @ 7PM ET (U.S.) / Fridays @ 9AM AET (AU)

- 14 July / 15 July
- 25 August / 26 August
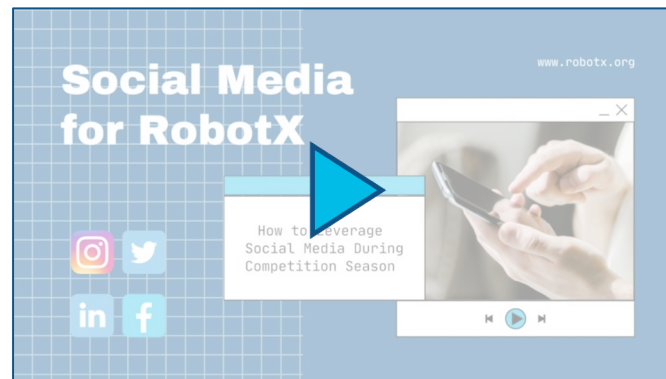- 29 September / 30 September
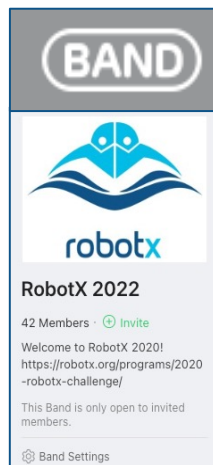- 27 October / 28 October

Sign up for the Band App

Hop on the RobotX Band(wagon)!

robotx.org/2022/band

Social Media Tips

RobotX 2022

robotx.org/2022

QUESTIONS?

Thank you RobotX 2022 Organizers!

RoboNation is a 501c3 nonprofit organization whose mission is to provide a pathway of hands-on educational experiences that empower students to find innovative solutions to global challenges. Working together with the industry, research and educators, we have grown to include over nine student competitions and programs and engage more than 250,000 students per year.

For more information contact university-competitions@robonation.org