WELCOME TO RACING THE SUN ORIENTATION NIGHT!

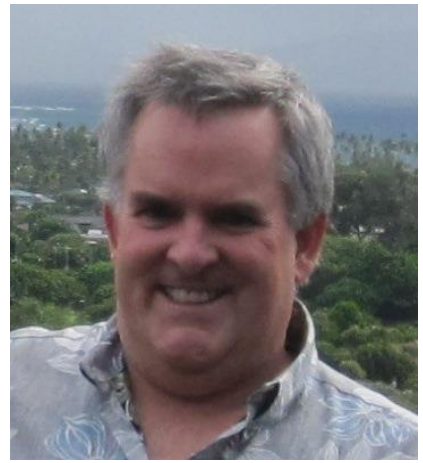
Meet the Team!

Amber Folkman
Manager of School Relationships and Impact

America Miranda
Programs Manager
Racing the Sun Director

Rose Prendergast
Racing the Sun Specialist

John Sepp
Racing the Sun Advisor/Mentor



Jay West
Racing the Sun Advisor/Mentor

Racing the Sun

- Racing the Sun is an engineering program that teaches participants engineering skills such as designing, physics, and math while also teaching students how to work collaboratively, critical think, and communicate
- Different high schools across southern Arizona will build and design their own solar powered go kart that they will later race against other teams within their division!
- RTS also provides career days outside of track, race and workshop days to introduce students to career possibilities within the STEM, specifically engineering field.

Season Schedule

Registration Closes

3 Oct. 2022

21 Oct. and 22 Oct.

Verbal Presentations
Assembly and Set Up of Standard Karts
Your Go Kart Electrical System
Project Planning and Management
Electrical Systems and Drawings
User Friendly Fundraising

WORKSHOP DAYS

OCTOBER 21 PHOENIX, AZ

OCTOBER 22 TUCSON, AZ

Career Day Tucson / Phoenix

Students will tour various corporations, speak with industry professionals and participate in Q&A sessions

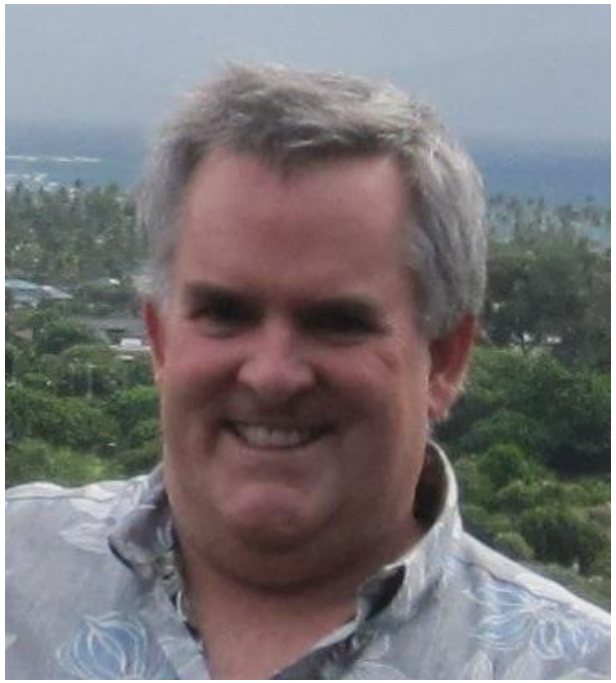
Past collaborators include Raytheon, TEP, Caterpillar, Pima Community College, Rosendin, IBM, University of Arizona College of Engineering

Small group tours give students the opportunity to engage with local organizations and see themselves in various STEM field

Track Days & Progress Checks

- Additional track testing periods outside of Test Day and Race Day
- Progress Checks: Mentors will visit your school and provide feedback and support

Meet the Engineers!



Jay West

Jay has been an Electrical Engineer for 40 years. He has volunteered on the RTS program for the last 4 years. Jay has worked at Raytheon for 5 years. His specialty is designing and programming Radio-Frequency (RF) Automated Test Stations. His favorite hobby is Drag Racing, where his car runs 10sec at 130mph in the quarter mile.

John Sepp

John is a retired Electrical Engineer with 40 years in test, test flight support, and specialized simulators. He holds a BS-ETE degree from California Polytechnic University - Pomona and a Masters in Science - Information Technology from the University of Phoenix. His interests are photography, camping, and electronics (of all types). John became involved with SARSEF to help America Miranda, Rose Prendergast, and Jay West with the new Standard - Novice Class kart as well as the existing Legacy Class kart, and Maker Class kart. He is also active as a mentor to high schools students involved with Racing The Sun.

Go Kart Divisions: Teams will compete within their respective divisions on Race Day.

Overall Grand Champion will be determined at the end of the season, after the tabulation of season scores.

- **Standard Novice:**
  - Best for new teams / schools
  - Your team will receive the standard novice parts as well as the kart frame
- **Legacy**
  - Teams who have previously competed and will use an existing kart provided by SARSEF / UA Tech Park
  - Teams will receive a modified parts package for components that need to be changed for the upcoming season
- **Maker**
  - Teams who previously competed and/or want to build their kart(s) based on their own design and kart frame.

Standard Novice Kart Components List

TrailMaster MID XRS Go-Kart

Parts included in your package:

- 36v Electric Brushless Motor Kit
- 400W Flexible Solar Panels - to help charge the battery
- Renogy Boost 10A 36v/48v Auto DC Input
- 12v 10 Ah Batteries (3 pack) – these help provide power to the motor
- GPS Speedometer (make or buy)
- 50W 12 Volt Solar Panel Kit - for the karts power source
- 12v 4 Ah DC Battery – provides kart with power
- 2 Front Tires
- 2 Back Tires

Things needed/strongly suggested that are not included:

- Spare chain master links
- 2.8mm electrical connectors
- 20 AWG wire

* Fundraising options will be covered at our Workshops Day!

Legacy Kart Components List

Components

- Renogy Boost 10A 36v/48v Auto DC – Input – replaces current charge controller
- Utilize existing 175 watt solar panel for 48v battery pack
- Utilize existing 48v DC motor and controller

New Items

- 50W 12 Volt Solar Panel Kit - for the karts power source
- 12v 4 Ah DC Battery – provides kart with power
- 12v 10 Ah Batteries (4 pack)
- Front & Back Tires
- GPS Speedometer (make or buy)

Maker Kart Components List

Components

- Existing 48v DC motor and controller
- Existing solar panel(s) with center of gravity calculations
- 12v 7.5 Ah (maximum) Batteries (4 pack)

New Items

- Renogy Boost 10A 36v/48v Auto DC Input
- GPS Speedometer (make or buy)

Track Safety & General Rules

Track Safety will be covered during Workshop Days.

Teams will be required to assign main driver and backup driver to complete track safety course and be licensed to drive on Race Day.

Musselman Honda will offer additional track days ahead of Race Day to ensure safety of all drivers.

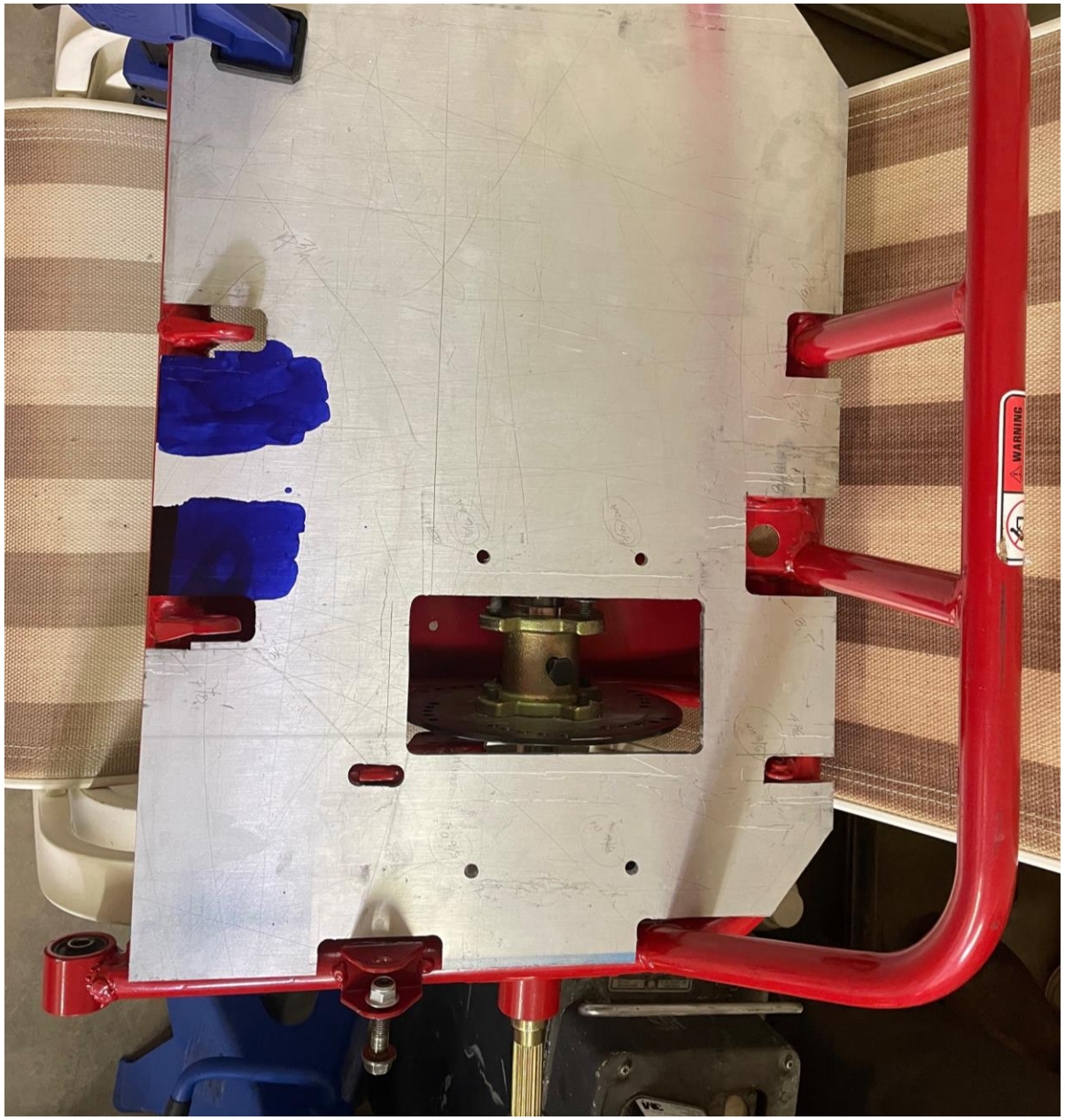
Rules and Appendices & Season Tracking

Teams will be receiving a link to rules and appendices prior to start of the season.

Teams will be assigned folders to upload all documents throughout season. Scored drafts, mentor feedback and all important documents will be stored in team folders for easy access throughout season.

Waivers and Rosters are due prior to the start of the season, must be submitted electronically via the link provided upon registration.


Questions?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