



**Design & Prototyping Competitions Inspired by**

# **ESPORT**

***PLUS* The iNSL iRacing T.E.A.M.S. Racing Series**

**Level UP Your Gaming Program  
with Esports Design & Prototyping Competitions**

Data driven gamers and data-driven non-gamers are invited to compete or showcase in the International STEM League's T.E.A.M.S. Academic Season.

# International STEM League

INSL.org 501C3 Charitable Organization EIN 45-4064387



Technology, communication skills and design thinking help teams practice data driven gaming, prototyping & entrepreneurship.

Add students to your digital classroom and "log in to get hands on."

You'll find easy-to-follow resources for a variety of projects.

Welcome to the  
NSBE Pre-College  
T.E.A.M.S. Portal

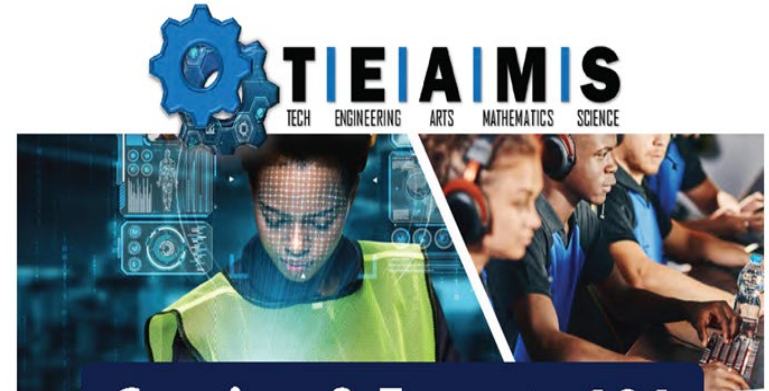


# DATA DRIVEN

Did you know that girls who game are 3.3 times more likely to pursue STEM career paths?

The number of schools with accredited Varsity tennis teams is now equal to schools with Esports teams!

180 Schools now offer college scholarships for gaming!



## Gaming & Esports 101

ELECTRONIC SPORTS

teams have agents, trainers, sponsors & media like pro athletes

describes any video game with a competitive platform

includes a mix of individual gamers and team leagues

increases social interaction & graduation rates

leads to college **scholarships** at more than 100 top schools

has an estimated audience of more than 600 million viewers by 2024

girls who played video games are 3.3 times more likely to study STEM\*

is an opportunity to open doors for **inclusion & diversity**

requires a host of 21st century skills including teamwork



**Compete in the points race.  
Showcase in the Metaverse.**

**Go head-to-head in the Esports Lounge  
at NSBE Annual Convention in Atlanta!**

# How does this work?



1. Form a team (any size).



2. Choose a challenge (3 options).



3. Learn online. Then prototype!



4. Race or game with data.



5. Climb the points leaderboards.



6. Compete at NSBE Finals!

# Choose 1 Path (or 2 or 3)



**Sim Racing on PC**

GAMING TOWARD

**SYSTEMS ENGINEERING**

**Innovation Challenge**

Racing Sim Rigs or  
Gaming Peripherals!

**PLUS**

**iRacing Track Series**



**Data Driven R&D  
& Cybersecurity**

**Dashboards & Drones**

GAMING TOWARD

**DIGITAL PATHWAYS**

**Data Certificate +  
Dashboard Challenge**

**OR**

**Drone Gates Showcase**  
Electronics & Prototyping

## SYSTEMS ENGINEERING

### Design Sim Rigs or Gaming Peripherals!



### Create a Tabletop Setup

or

### Develop a Full Sim Rig

#### FOCUS ON PERIPHERALS

with an **Optical Mouse Build**



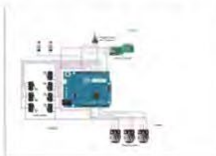
Use cardboard prototyping to design and construct just the tabletop wheel and pedal that will hold your electronics.



Open an optical mouse to reverse engineer the electronics for an excellent lesson on sustainable design.

#### OR... FOCUS ON PERIPHERALS

with **Arduino and Coding**



Follow one of our diagrams or design your own layout using curriculum in the program.



Download software and calibrate your tabletop wheel and pedal setup to steer & stop.

#### KEEP RIG DESIGN SIMPLE



#### OR... DESIGN A TRAVELING SHOWPIECE



# OPTION 1:

## Design & Prototype



## Connect & Calibrate



## Accelerate Performance



iRacing is a PC based simulated racing platform.

### 1. Design & Prototype a Custom Racing Station

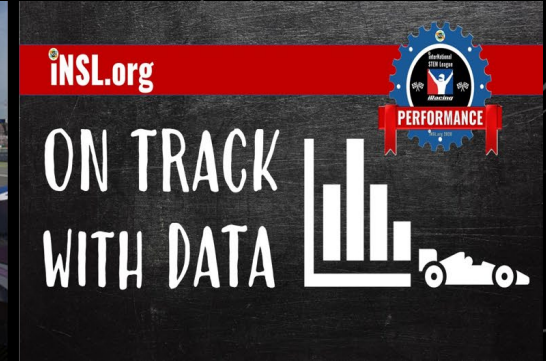
Tabletop Wheel & Pedal **or** Full Custom Sim Rig

### 2. Race on Sim Tracks

Master performance using pre-made wheel-and-pedal.

### 3. Add Graphics & Sponsors to Your Vehicle





## ☐ Log in to learn and race!

- ✓ Practice anytime on private tracks.
- ✓ Join optional Saturday group practices.

## ☐ Earn time attack points anytime.

- ✓ Document data driven performance.
- ✓ Enter your team's top 3 scores!

## ☐ Compete

- ✓ in LIVE streaming events (Feb-Mar)!
- ✓ at NSBE ATL Convention Esport Lounge!

## INCLUDES

- ✓ 12 iRacing Annual Licenses
- ✓ Electronics & Cardboard Prototyping Materials for Wheel & Pedal Set
- ✓ Digital Classrooms
- ✓ Suggested Agendas

# OPTION 2: Dashboard Challenge

Take the Data Analyst Course. Earn a Certificate & Compete!

**No coding  
No kidding.**

**AI does that  
part for you.**



**BREAK IT DOWN**  
**What Affects Overall Scores?**

Learn to love data now, then level up with coding later. Compete for prizes & remote internships with Eisengard AI.

Turn the project created during this course into a showstopper dashboard survey app & COMPETE.

- Earn an **industry certificate!**
- Join the **developers' community!**
- Compete for **remote internships.**
- Apply to **become a paid developer!**
- Build a college fund!

## Design and Prototype Electronic Drone Gates



FPV  
RACE GATES

Gates are incorporated into tracks to mark passage and record speeds.

- ✓ Electronics record passage of the drone through each gate.
- ✓ Measure the drone's speed with electronics! (Micro:Bits, Arduino, etc.)

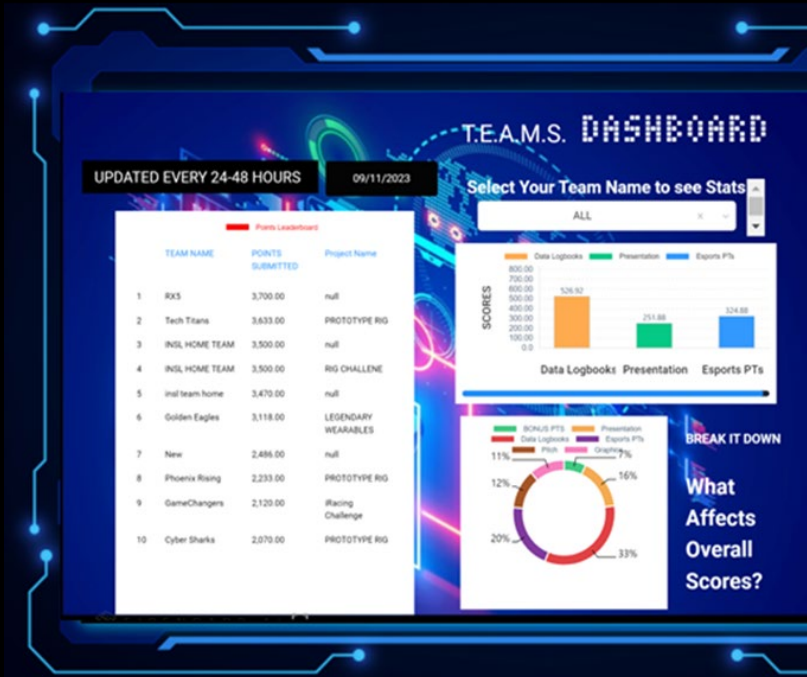
**SHOWCASE Drone Gates at  
NSBE ATL 2024!**

1. Lift off & fly through gates.
2. Capture data.
3. Land safely.
4. Earn awards & certificates.

**iNSL.org**

# How do you win?

## All T.E.A.M.S. Competitors Can Earn Points for...



- learning new skills
- graphic design
- presentations
- projects & prototyping
- gaming investigations

**iNSL iRacing Track Competitors**  
Earn points for all of the above **PLUS**

**Compete in 5 Live Streamed Races**  
**in Feb-March for Prizes, Trophies & Awards**



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## ESPORT

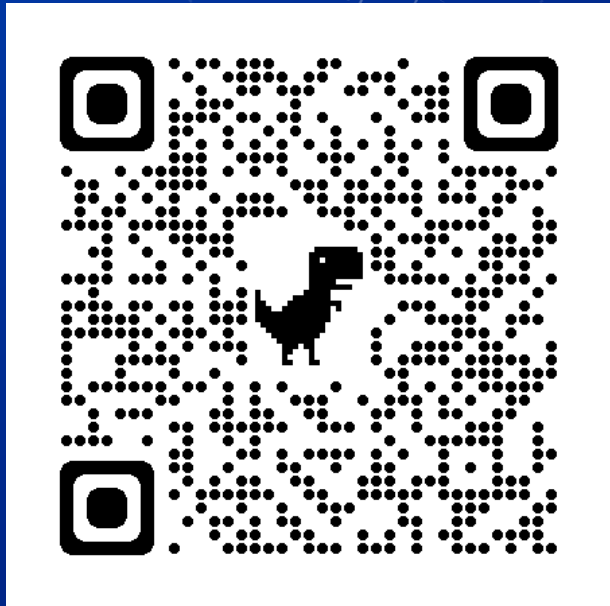
Data Driven  
Challenge  
League for  
Gaming



## Welcome to the NSBE Pre-College T.E.A.M.S. Portal



National Society of Black Engineers



Take the NSBE Survey  
to see the Data Analytics  
Course in Action.

Get Started at

## [iNSL.org/NSBE](https://iNSL.org/NSBE)