

The Port Authority of New York and New Jersey Innovation Hub (iHub) presents

## **The High School Challenge: Lincoln and Holland Tunnel Catwalk Robotics**

### [The High School Challenge](#)

[The Port Authority of New York and New Jersey](#) is hosting a contest for the next generation of innovators to utilize 21<sup>st</sup> Century technology to re-imagine how we deal with stopped vehicles in the tunnel.

New York & New Jersey high school students are challenged to collaboratively conceptualize and design a robotic machine that will serve as the first line of communication to operations staff at the tunnels. Throughout the design process, students will receive feedback from the agency's employee Innovation Hub, a unit within the Chief Development Officer's team that fosters and implements staff ideas for potential agency pilot projects.

**The winning team's school will receive a prize of \$750 along with the possibility of the design being adopted and built by the agency.**



### **The High School Challenge Purpose**

As a result of the cessation of [tunnel catwalk cars](#) in 2011 at the Lincoln and Holland Tunnels, tunnel police and operations staff have had limited ways to identify stoppages, communicate with drivers, and address the stopped traffic.

### **The High School Challenge Requirements**

In a group of 5–8 peers, students are tasked with conceptualizing and designing a robotic machine that will help inform the response, to motorists, by tunnel employees and meets the following requirements:

- Must be mobile and flexible;
- Must provide two-way communication between the stopped vehicle and employees;
- Must have cameras;
- Must account for limited tunnel space;

- Must be an original design visualized on a tri-fold poster board that captures the student group’s innovation and creativity. Please see the [final delivery guidelines](#) to view the standardized template designed to ensure fair and uniform submissions.

### The High School Challenge Timeline

Phase One Outreach and Participant Engagement	
General Interest Collection	August 2023
Web Info Sessions	September 2023
Phase Two: Port Authority & Team Workshops	
School Year Begins = Program Begins	September 7, 2023
Applications Open	September 7, 2023
Applications Close	October 4, 2023
iHub x Student Check-Ins	late October to early November 2023
Phase Three: Student Expositions	
Exposition Period	late November to early December 2023

### The High School Challenge Guidelines:

- Student groups must be a group of 5 to 8 students enrolled in schools in NY or NJ and be in grades 9 to 12.
- Must have designated advisor from their school to advise them throughout the Challenge.
- Advisors are responsible for registering student teams.

**Applications will open in September 2023. Join the mailing list below to receive regular updates!**

If you are *staff* from a NY or NJ high school and are interested in participating in The High School Challenge, please join the mailing list by filling out the following form: [Staff General Interest Form](#)

If you are a *student* from a NY or NJ high school and are interested in participating or would like to learn more about The High School Challenge, please join the mailing list by filling out the following form: [Student General Interest Form](#)

**For any other questions regarding the Challenge, please feel free to contact the iHub at [iHub@panynj.gov](mailto:iHub@panynj.gov) with the subject line “The High School Challenge”.**