

Pennsylvania Safety Transportation and Research Track (PennSTART)

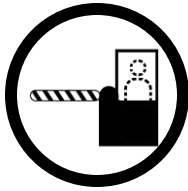
The Pennsylvania Department of Transportation (PennDOT), Pennsylvania Turnpike Commission (PTC) and Penn State University (PSU) are partnering to explore and advance PennSTART; a state-of-the-art training and testing facility to address the transportation safety and operational needs of Pennsylvania and the Mid-Atlantic Region in six key areas:



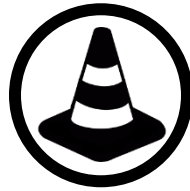
Traffic Incident Management



Connected & Automated Vehicles



Tolling, ITS, and Traffic Signals



Work Zones



Commercial Vehicles



Transit Vehicles

The Need

Training - In Pennsylvania, over 82% of responders require some form of additional training. Unfortunately, similar conditions exist across multiple field and business areas. Often training requires demonstrations and hands-on exercise that cannot be performed in a classroom. As a result, instructors are restricted to playing video or conducting tabletop exercises.

Technology - As advances occur in the transportation industry, it is imperative that new equipment is tested in a controlled environment so we identify and correct issues to minimize disruptions when deployed in a live environment.

The Benefits



Traffic Incident Management

- Enhances traffic incident management training
- Creates a world class platform for PennTIME's Joint Operational Policy
- Allows for Unmanned Aerial Vehicle testing and training



Connected & Automated Vehicles

- Capable of testing over 75% of the US DOT approached connected vehicle applications
- Safe, controlled environment of technology prior to field deployment, and equipment optimization & interoperability
- Fulfills PennDOT's National Highway Traffic Safety Administration-defined role as the lead agency for advancing HAV technology in PA



Tolling, ITS, and Traffic Signals

- Local high-speed testing facility for new ITS/tolling/signal equipment
- Hands-on training for maintenance of various types of ITS/tolling equipment
- Evaluating and testing devices with Advanced Traffic Management System prior to field deployment
- Cybersecurity, data management and analytics research



Work Zones

- Safe, simulated training for high speed and mobile operations
- Centralized location for all work zone training and testing needs
- Temporary traffic control devices can be evaluated and tested in simulated environments
- OSHA and ANSI safety certification training opportunities



Commercial Vehicles

- Leverages significant private investment opportunities from commercial vehicle technology partners
- High-speed vehicle platoons testing
- Smart truck parking applications
- Increases partnerships with corridor coalitions (e.g., I-95 and I-81)



Transit Vehicles

- Maximizes bus transportation operating efficiencies and service improvements to the disabled
- Accelerate research and deployment of autonomous driving systems for transit buses, including autonomous collision avoidance and emergency braking (*Safety*)
- Transit Prioritization (e.g., City of Pittsburgh ATCMTD grant award)