

ANNEX – SAFETY SYMPOSIUM EXHIBITS

1. Mixed Reality LRT Driving Simulator

The Mixed Reality Light Rail Transit (LRT) Driving Simulator combines both virtual and physical elements to provide our staff with a realistic training environment to hone their practical driving skills. Notably, it is also equipped with the capability to simulate emergency scenarios, such as an obstacle on the track, to enable our staff to put into practice the correct protocol in handling track emergencies. Through constant practice, our staff can anticipate and respond calmly to such situations to minimise disruption to rail operations.

The simulator is also designed with an advanced visual tracking feature that enables the training instructor to closely monitor the trainee's performance in real time and provide timely feedback to develop and strengthen the trainee's competency.

2. Golden Eye

Golden Eye is a fatigue monitoring system that utilises machine vision technology to monitor Bus Captains for signs of fatigue or distractions, such as yawning, closing of eyes or not paying attention to the road. Mounted on the dashboard, the system analyses the Bus Captain's facial expressions and provides real-time feedback to him or her through audio and visual alerts, along with seat vibrations. This enables Bus Captains to stay alert and focussed on the road at all times. Currently, the system is installed on 7% of SBS Transit's fleet or 250 buses, and close to 30% of our fleet will be equipped with the system by end 2024.

3. Multi-role Robot (MR-2)

MR-2 is a multi-role robot with safety, security and cleaning capabilities for public transport operations. The robot will be able to independently patrol the bus interchanges and MRT stations, looking out for security concerns such as unattended bags, as well as broadcast safety-related messages. In addition, it can undertake cleaning duties at the transport hubs.

4. Aluminum Jig for Pantograph System

On the North East Line, a pantograph system mounted on the train's roof draws power from the Overhead Catenary System for the trains to operate. Maintenance work is conducted regularly on the pantograph system to ensure that it remains in optimal condition.

Previously, our technicians had to manually lift up the heavy upper frame of the pantograph for maintenance work, which posed a safety concern. Thus, our team designed and fabricated an aluminum jig that could support the entire upper frame assembly, eliminating the need for manual lifting and enhanced the safety of our staff.

5. DriveSafe+

The DriveSafe+ system utilises Artificial Intelligence and video analytics technologies to alert the Bus Captain of potential collisions with vehicles and other road users through visual and audio alerts. Four wide-angle field-of-view cameras each installed at the front, sides and rear of the bus provide comprehensive coverage of blind spots while an integrated blinker with buzzer on the sides of the bus provides additional visual and audio alerts to road users.

6. No Falls-On-Board (NFOB) Campaign

The No-Falls-On-Board (NFOB) campaign aims to educate passengers on the importance of bus safety through three key messages: (1) Hold onto handrails at all times; (2) Remain seated until the bus stops; and (3) Stay on the lower deck of the bus for vulnerable passengers, such as the elderly, pregnant women and those with mobility challenges. These safety messages are shared with our passengers through monthly roadshows and flyer distribution at bus interchanges by our Safety Champions and frontline staff, as well as bus safety videos on our social media channels.

7. Familiarisation Tours for Students with Special Needs

SBS Transit believes in an inclusive and accessible public transport system where all commuters, including those with special needs, can travel confidently and independently on buses and trains. In partnership with Metta School, we conducted familiarisation tours for their students at our bus interchange and MRT station to provide them with hands-on experience in travelling. Through these tours, students familiarised themselves with a variety of skills from topping up their EZ-Link cards to navigating the public transport system. They also picked up safety and graciousness tips for taking public transport.