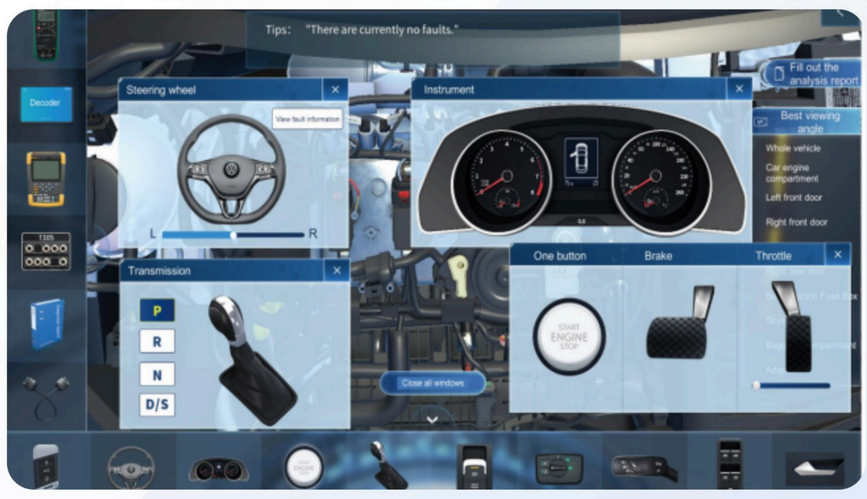
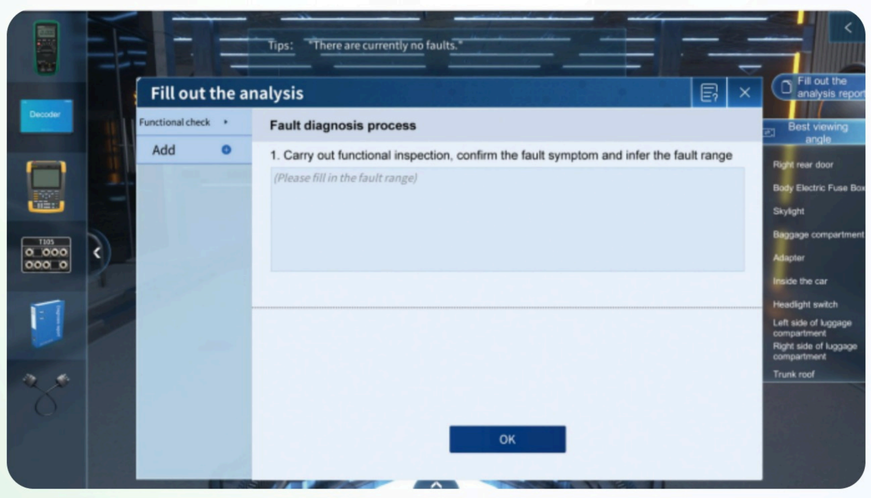
Virtual Automotive diagnostic System

The software is developed using the **2016 Magotan B8 model** as its basis. It employs a meticulous process of **1:1 modeling** and collection of actual vehicle data to accurately recreate all the situations that arise during real-life training sessions. This comprehensive replication of scenarios serves to improve students' skills in **identifying faults** and **resolving issues**. The software is divided into two main components: the student module and the teacher module.

This software is developed based on a commonly used car model and encompasses 82 types of failures, accompanied by comprehensive data. This extensive range of failure scenarios provides learners with ample opportunities for practice and hands-on experience.



By employing a **1:1 modeling** approach, this software accurately replicates the actual vehicle testing operation to a high degree. This level of fidelity eliminates the need for expensive consumption of resources and reduces the associated risks.



The software incorporates a comprehensive report function that empowers learners to organize their thoughts and analysis in a clear manner.

The software includes a "Best Viewing Angle" function that flawlessly simulates the interaction between learners and the car, providing users with a fully immersive experience.

Highlights

- Usage in National Vocational Skills Competition: This product is specifically designed to be used in the automotive testing and maintenance competition of the vocational skills competition for high school students, with the **Volkswagen Passat B8** designated as the vehicle model. Extensive research has been conducted in vocational institutions, resulting in a vast collection of **real-world fault data**. By utilizing this approach, students are provided with a professional learning process, accurate data, and an authentic collaborative experience.
- Realistic Simulation of National Competition Scenarios: The software offers highly realistic simulations of the fault diagnosis scenarios encountered in the national competition. **It enables students to assume different roles**, allowing them to develop a profound understanding of various fault manifestations, troubleshooting techniques, and the application of diagnostic tools. This approach exposes students to the most genuine aspects of the national competition process.
- Multiplayer Coordination: The software supports **multiplayer collaborative operations**, facilitating interactive experiences among students. This feature creates a comprehensive practice environment that enhances students' capabilities and skills. By engaging in **collaborative activities**, students can reinforce their learning and develop a deeper understanding of the subject matter.

Functionalities

Modules	Component
Engine-related Faults	Include issues like the J906 relay grounding wire break, SB16 damage, SB3 circuit break, G28 signal wire break, G40 signal wire short to ground, J623 CAN-H circuit break, G40 signal wire break, and more
Electrical-related Faults	Include problems such as J764 power supply wire fault, E512 grounding wire break, EX1 car light switch power supply SC8 circuit break, E378 T6as3 wire circuit break, right tail light M2 power supply circuit break, left parking and position light bulb M1 power supply circuit break, and so on