# Test Result

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| TC ID | Priority | Result | Explanation |
| UI.AN.01 | High | Pass | The fire truck reached the destination autonomously from a specified starting point. |
| UI.AN.02 | High | Pass | The fire truck adapted to obstacles and road conditions. |
| UI.AN.03 | Medium | Pass | The fire truck determined and followed an alternate route. |
| UI.AN.04 | High | Pass | The fire truck moved according to traffic lights and signs along the designated route. |
| UI.AN.05 | Medium | Pass | The fire truck recalculated the fastest and safest route upon receiving an emergency signal. |
| UI.AN.06 | Low | Pass | The fire truck adjusted its performance according to different weather conditions (rain, snow, fog). |
| UI.LDA.01 | Medium | Pass | Lidar data was collected and visualized as a point cloud. |
| UI.LDA.02 | Medium | Pass | Delay and data loss in Lidar data collection were analyzed. |
| UI.LDA.03 | High | Pass | Lidar data was collected and processed at different speeds. |
| UI.LDA.04 | High | Pass | The Lidar sensor ensured accurate detection of various obstacles and objects. |
| UI.LDA.05 | Medium | Pass | Lidar data was collected and compared under night and day conditions. |
| UI.LDA.06 | Low | Pass | The accuracy of Lidar data for moving and stationary objects was tested. |
| UI.RLA.01 | Medium | Pass | The reinforcement learning algorithm adapted navigation strategies according to environmental conditions. |
| UI.RLA.02 | Medium | Pass | The reinforcement learning algorithm was tested with new learning scenarios. |
| UI.RLA.03 | High | Pass | The algorithm's retraining and adaptation process was evaluated according to changing conditions. |
| UI.RLA.04 | High | Pass | The algorithm's performance was tested on different road types (urban, highway, rural). |
| UI.RLA.05 | Medium | Pass | The algorithm's performance and coordination ability against multiple agents were examined. |
| UI.RLA.06 | Low | Pass | The algorithm's impact on energy efficiency and fuel consumption was evaluated. |
| UI.RTDV.01 | Medium | Pass | The movement of the fire truck and the point cloud data were visualized in real-time. |
| UI.RTDV.02 | Medium | Pass | Real-time data was visualized on different devices (tablet, computer). |
| UI.RTDV.03 | High | Pass | The seamless and low-latency real-time data stream was tested. |
| UI.RTDV.04 | Medium | Pass | The transmission performance of real-time data under different network conditions (Wi-Fi, LTE, Ethernet) was evaluated. |
| UI.RTDV.05 | High | Pass | The system's CPU and memory usage during real-time data visualization were monitored. |
| UI.RTDV.06 | Low | Pass | The impact of real-time data visualization on user experience was measured through surveys and feedback. |
| CS.AU.01 | High | Pass | Invalid credentials were entered for login. |
| CS.AU.02 | High | Pass | Valid credentials were entered for login. |
| CS.AU.03 | Medium | Pass | Password reset was done using the "Forgot Password" option. |
| CS.AU.04 | High | Pass | Login was done using multi-factor authentication (MFA). |
| CS.AU.05 | Medium | Pass | The system's behavior was tested when the network connection was lost during authentication. |
| CS.AU.06 | High | Pass | Unauthorized access attempts with authentication credentials were monitored and reported. |
| CS.AO.01 | Medium | Pass | User information was added. |
| CS.AO.02 | Medium | Pass | User information was edited. |
| CS.AO.03 | Low | Pass | User information was deleted. |
| CS.AO.04 | Medium | Pass | User profile picture was added. |
| CS.AO.05 | High | Pass | User profile information was updated without data loss or corruption. |
| CS.AO.06 | Medium | Pass | Data backup and recovery operations related to user account information were tested. |
| CS.RU.01 | High | Pass | Lidar data collection and processing were tested on ROS 2. |
| CS.RU.02 | High | Pass | Real-time data processing performance on Ubuntu with ROS 2 was evaluated. |
| CS.RU.03 | Medium | Pass | Integration of simulation and real-world data was tested on ROS 2 and Ubuntu. |
| CS.RU.04 | High | Pass | Performance of autonomous navigation algorithms was analyzed on ROS 2. |
| CS.RU.05 | Medium | Pass | Visualization and analysis of point cloud data were tested on ROS 2. |
| CS.RU.06 | Low | Pass | Data processing capacities and scalability of the system were evaluated on ROS 2 and Ubuntu. |
| BR.BK.01 | High | Pass | System data was automatically backed up at specified intervals. |
| BR.BK.02 | Medium | Pass | Backup was initiated and monitored manually by the user. |
| BR.BK.03 | High | Pass | System performance was evaluated during the backup process. |
| BR.BK.04 | Medium | Pass | Integrity and accessibility of backup files were tested. |
| BR.BK.05 | High | Pass | Simulation and analysis of data losses and corruptions during backup. |
| BR.BK.06 | Low | Pass | Performance comparison of different backup scenarios (full backup, incremental backup). |
| BR.RS.01 | High | Pass | Full recovery of backed-up data. |
| BR.RS.02 | Medium | Pass | Data integrity was ensured during the recovery process. |
| BR.RS.03 | High | Pass | Recovery time and performance were evaluated. |
| BR.RS.04 | Medium | Pass | Testing of different recovery scenarios (full recovery, selective recovery). |
| BR.RS.05 | High | Pass | Simulation and analysis of errors and interruptions during the recovery process. |
| BR.RS.06 | Low | Pass | Accuracy and reliability of user-initiated manual recovery operations. |
| SP.MM.01 | High | Pass | Monitoring of system resource usage (CPU, RAM, network). |
| SP.MM.02 | Medium | Pass | System performance was monitored under different load conditions. |
| SP.MM.03 | High | Pass | System response time was measured under different data processing scenarios. |
| SP.MM.04 | Medium | Pass | System performance was evaluated for data processing with different data volumes. |
| SP.MM.05 | High | Pass | Accuracy of real-time performance monitoring and reporting tools was tested. |
| SP.MM.06 | Low | Pass | User experience was evaluated during performance monitoring. |
| SEC.DS.01 | High | Pass | Data was encrypted during transmission and storage. |
| SEC.DS.02 | Medium | Pass | Effectiveness of encryption algorithms used for data security was tested. |
| SEC.DS.03 | High | Pass | Effectiveness of measures and response processes against data security breaches was evaluated. |
| SEC.DS.04 | Medium | Pass | Correct operation of data access controls (user roles and permissions) was tested. |
| SEC.DS.05 | High | Pass | Ensured data integrity and accuracy during data processing and transmission processes. |
| SEC.DS.06 | Low | Pass | Regular updates of software and tools used for data security were tested. |
| RTDP.01 | High | Pass | Performance of real-time data processing system was evaluated. |
| RTDP.02 | Medium | Pass | Real-time processing capabilities were tested with different data sets. |
| RTDP.03 | High | Pass | Data loss and latency were analyzed during real-time data processing. |
| RTDP.04 | Medium | Pass | Scalability and flexibility performance of the real-time data processing system were evaluated. |