



Automated Guided Vehicle (AGV) Fleet Management & Safety Checklist 2026

Pre-Operational Hardware Inspection

Verification of physical integrity, including wheels, sensors, chassis, and battery health prior to deployment.

Inspection Date

AGV Unit ID

- ☐ AGV-001
- ☐ AGV-002
- ☐ AGV-003
- ☐ AGV-004

Hardware Component Status

- ☐ Wheels & Drive Train Intact
- ☐ Chassis & Casing Undamaged
- ☐ Battery Level Sufficient (>80%)
- ☐ Sensors/Lidar Clean & Clear
- ☐ Mechanical Grippers/Attachments Functional

Battery Percentage Level

Enter a number...

Observed Hardware Defects or Wear

Write something...

Inspector Authorization

Sensor & Obstacle Detection Calibration

Testing of LiDAR, ultrasonic sensors, and emergency bumper functionality to ensure collision avoidance accuracy.

LiDAR Sensor Status

- ☐ Fully Functional
- ☐ Calibration Required
- ☐ Fault Detected

Obstacle Detection Components Verified

- ☐ Ultrasonic Sensors
- ☐ Infrared Proximity Sensors
- ☐ Safety Bumpers
- ☐ 3D Vision Cameras
- ☐ Magnetic Floor Sensors

Sensor Detection Range (in meters)

Enter a number...

Calibration Discrepancy Notes

Write something...

Technician Verification Signature

Navigation & Path Mapping Accuracy

Validation of floor markers, QR codes, or SLAM (Simultaneous Localization and Mapping) precision and route adherence.

Navigation Technology Type

- ☐ LiDAR/SLAM
- ☐ Magnetic Tape/Path
- ☐ QR Code/Vision-Based
- ☐ Laser Reflector

Deviation Margin (cm)

Enter a number...

Path Obstruction Checkpoints

- ☐ Intersection Clearance
- ☐ Docking Accuracy
- ☐ Turning Radius Compliance
- ☐ Floor Marker Visibility

Last Map Re-calibration Date

Enter date...

Navigation Anomalies Observed

Write something...

Technician Verification

Fleet Communication & Connectivity Audit

Assessment of Wi-Fi/5G signal stability, latency monitoring, and real-time data synchronization with the Fleet Management System (FMS).

Audit Date

Network Connectivity Status

- ☐ Stable
- ☐ Intermittent
- ☐ Unstable/Dropped
- ☐ Critical Failure

Average Network Latency (ms)

Communication Protocols Verified

- ☐ Wi-Fi (802.11)
- ☐ 5G/LTE
- ☐ Bluetooth/BLE
- ☐ RFID/NFC

Signal Dead Zone Observations

Write something...

Network Signal Strength Heatmap/Log Upload

 Upload File

Network Engineer Verification

Safety Protocol & Emergency Stop Verification

Testing of all physical E-stop buttons, software-based emergency halts, and audible/visual warning signals (lights and sirens).

Physical E-Stop Button Functionality

- ☐ Fully Operational
- ☐ Needs Maintenance
- ☐ Non-Functional

Visual & Audible Warning Systems

- ☐ All Lights/Sirens Working
- ☐ Partial Failure
- ☐ System Malfunction

Safety Perimeter Sensors Verified

- ☐ LiDAR Field of View Clear
- ☐ Infrared Proximity Sensors Active
- ☐ Ultrasonic Sensors Responsive

Emergency Stop Incident Observations

Write something...

Last Safety Verification Date

Enter date...

Safety Officer Authorization

Battery Management & Charging Station Compliance

Inspection of automated docking stations, charging contact cleanliness, and automated battery swapping mechanisms.

Inspection Date

Charging Station Status

- ☐ Operational
- ☐ Maintenance Required
- ☐ Out of Service

Current Battery Level (%)

Physical Inspection Points

- ☐ Charging Contacts Clean
- ☐ Cables/Hoses Undamaged
- ☐ Docking Alignment Accurate
- ☐ No Thermal Abnormalities

Observations & Discrepancies

Write something...

Technician Signature

Traffic Management & Zone Interfacing

Review of AGV interaction with automated doors, conveyor intersections, and pedestrian-heavy zones.

Intersection Safety Status

- ☐ All intersections functioning correctly
- ☐ Manual intervention required
- ☐ Obstruction detected at intersection

Active Interaction Zones Monitored

- ☐ Automated Docking Stations
- ☐ Pedestrian Crosswalks
- ☐ Conveyor Transfer Points
- ☐ Automated Doorways
- ☐ High-Traffic Warehouse Aisles

Detected Near-Miss Incidents in Zone

Enter a number...

Traffic Flow Disruption Notes

Write something...

Floor Supervisor Verification

Software & Firmware Integrity Check

Verification of the latest firmware updates, error log analysis, and cybersecurity patch compliance for all fleet units.

Firmware Version Audit Date

Enter date...

Current Firmware Version Status

- ☐ Up to date
- ☐ Pending Update
- ☐ Outdated - Immediate Action Required

Completed Integrity Checks

- ☐ Checksum Verification
- ☐ Security Patch Verification
- ☐ Error Log Analysis
- ☐ Communication Protocol Test

Detected Anomalies or Error Log Summary

Write something...

Upload System Log Export

 Upload File

Software Engineer/Technician Verification

Payload Capacity & Load Stability Assessment

Validation of weight limits, center of gravity stability, and securing mechanisms for various cargo types.

Current Payload Weight (kg)

Enter a number...

Cargo Type

- ☐ Palletized Goods
- ☐ Loose Items
- ☐ Liquid Containers
- ☐ Metal Components
- ☐ Other

Stability Verification Checks Performed

- ☐ Center of Gravity Alignment Verified
- ☐ Load Securing/Strapping Inspected
- ☐ Packaging Integrity Confirmed
- ☐ Overhang/Width Clearance Checked

Load Stability Status

- ☐ Stable
- ☐ Unstable - Immediate Action Required

Discrepancy or Damage Notes

Write something...

Inspector Authorization

Incident Documentation & Post-Operational Review

Review of daily performance metrics, near-miss logs, and maintenance requirements identified during the shift.

Date of Incident or Review

Time of Incident/Shift End

Incident Severity Level

- ☐ Low (Minor Delay/No Damage)
- ☐ Medium (Equipment Downtime/Near Miss)
- ☐ High (Collision/Damage/Injury)

Root Cause Categories

- ☐ Sensor Malfunction
- ☐ Human Error/Pedestrian Interference
- ☐ Software/Connectivity Issue
- ☐ Mechanical/Hardware Failure
- ☐ Environmental/Floor Obstruction

Incident Description & Detailed Findings

Write something...

Incident Photos or Sensor Log Upload

 Upload File

Supervisor Verification

< Previous

> Next

✓ Finish

 Generate Sample Report