

AV Operations Readiness Checklist



Autonomous vehicles may drive themselves, but the fleets behind them cannot operate on their own. To help operators assess their readiness, we've developed this practical scorecard covering 14 critical operational areas. You can read more about it in our blog: ["Checklist for AV Deployments: Depots, Charging, and Remote Operations"](#).

This checklist assumes you already have available autonomous vehicles and a depot location scouted out. To select the best depot location, we suggest you use Autofleet Fleet Planning Simulator. Work your way through each area, ticking boxes as you go, and add up your score to see where your operation needs attention.

Fleet availability

Score ____ / 4

- ☐ Define clear vehicle readiness criteria
- ☐ Track dispatch-ready vehicle hours vs. scheduled hours
- ☐ Identify causes of unavailability and assign actions
- ☐ Track software release & firmware update readiness

Revenue utilization

Score ____ / 4

- ☐ Measure pickup wait times
- ☐ Track failed pickups with reason codes
- ☐ Track ride cancellations with reason codes
- ☐ Monitor paid vs. unpaid passenger miles

Empty mileage

Score ____ / 3

- ☐ Track non-revenue miles as a share of total miles
- ☐ Categorize empty miles by purpose (rebalancing, depot access, etc.)
- ☐ Review pickup, staging, and curb restrictions periodically

Depot turnaround

Score ____ / 3

- ☐ Measure total time from arrival to dispatch-ready status
- ☐ Measure queue times for charging, cleaning, and inspection
- ☐ Identify workflow bottlenecks and assign corrective actions

Charger availability and wait

Score ____ / 3

- ☐ Track available charger plug hours
- ☐ Log charger faults and dispatch maintenance immediately

- ☐ Measure vehicle queue times at chargers

Recovery performance

Score ____ / 3

- ☐ Measure time from incident detection to safe resolution
- ☐ Define and test roadside recovery and escalation workflows

- ☐ Track total downtime until vehicle return-to-service

Service quality

Score ____ / 3

- ☐ Establish clear definitions for completed rides and cancellations
- ☐ Assess impact of dispatch policy changes on rider experience

- ☐ Track median and 95th-percentile pickup wait times

Cost per completed trip

Score ____ / 3

- ☐ Track total cost per trip across fleet, energy, labor, and software
- ☐ Standardize cost accounting boundaries to guide operational decisions

- ☐ Include fixed overhead, insurance, and depreciation costs

Safety and operating boundaries

Score ____ / 3

- ☐ Verify dispatches stay within approved ODD (geo, weather, roads)
- ☐ Log and investigate all safety incidents and near-misses

- ☐ Maintain protocol and authority to suspend fleet operations when needed

Regulatory compliance and governance

Score ____ / 3

- ☐ Keep operational permits, insurance, and audit records up to date
- ☐ Establish required regulatory incident reporting channels

- ☐ Define clear responsibilities between AV developer and operator

Maintenance and technical readiness

Score ____ / 3

- ☐ Perform scheduled inspections, sensor cleaning, and calibration
- ☐ Document clear return-to-service sign-off criteria

- ☐ Track vehicle defects, hardware recalls, and battery health

System reliability and business continuity

Score ____ / 3

- ☐ Test operations resilience during power, cellular, or cloud outages
- ☐ Establish emergency response center contact protocols
- ☐ Maintain fallback procedures for wide-scale fleet disruptions

Data, software and cybersecurity

Score ____ / 3

- ☐ Validate data completeness and sync across software systems
- ☐ Establish cybersecurity incident response procedures
- ☐ Enforce role-based access controls and software version controls

Human support and partner performance

Score ____ / 3

- ☐ Train and staff remote assistance and field recovery teams
- ☐ Establish customer support channels for rider inquiries
- ☐ Define handoff procedures and monitor vendor SLAs

Total readiness score

____ / 44

Autofleet, part of Element Mobility, is the AI-powered fleet management optimization platform that helps operators launch, manage, and scale AV services across any OEM, from fleet planning and depot workflows to dispatch, remote operations, and city reporting.

Ready to put your scorecard into action?

[Book a demo](#) or visit autofleet.io/autonomous-mobility for more information.