

Case Study — Custom Machine & Process Automation

Schumak Equipment (India) Private Limited

Pro Car Wash – Touchless Car Wash Automation

Project Type

Custom Automation Program Development for Industrial Car Wash Equipment

Client

Schumak Equipment (India) Private Limited

Delivered By

NexTurner Technologies Private Limited

Scope Summary

End-to-end automation program development for a touchless car wash system — encompassing control logic design, process flow architecture, equipment coordination, sequence programming, and full commissioning.

Engagement Model

Custom machine automation — from manual workflow analysis through to fully functional automated system delivery and deployment readiness.

Engineering Intelligence into Every Machine

The Challenge

Schumak Equipment's Pro Car Wash system operated with significant manual involvement — requiring operators to sequence equipment, manage wash cycles, and coordinate mechanical components by hand. This created structural inefficiencies in process repeatability, consistency, and scalability.

High Operator Dependency

Manual operation required continuous operator involvement across every wash cycle, creating a direct dependency between personnel availability and system throughput.

Inconsistent Process Execution

Without structured control logic, wash cycle execution varied between operators and sessions — undermining quality consistency and equipment reliability.

Complex Equipment Coordination

Multiple wash systems and mechanical components required manual sequencing, increasing the risk of coordination errors and equipment misuse.

No Structured Process Control

The absence of automation meant no repeatable control framework — each cycle depended on operator judgment rather than defined process logic.

Manual Car Wash Process

Fully operator-driven workflow with no automated sequencing

Operator Dependency

System performance tied directly to personnel skill and availability

Automation Requirement

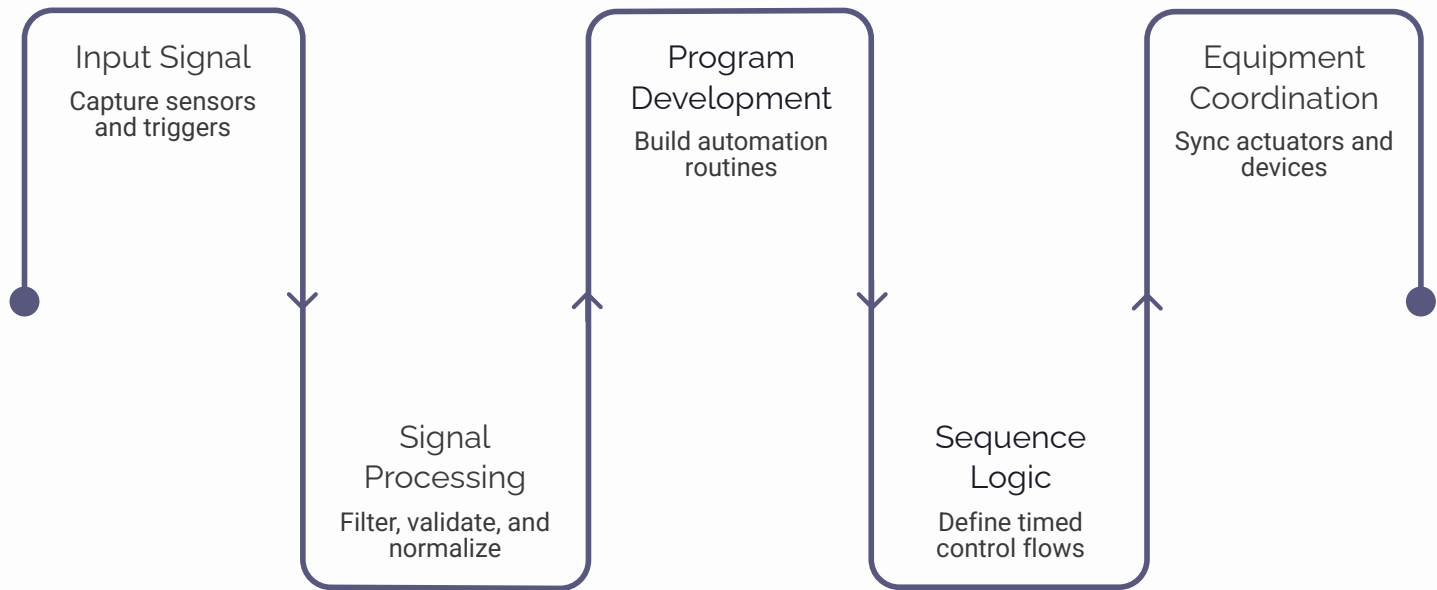
Structured control logic needed to replace manual sequencing

Touchless Automation

Target state: fully automated, repeatable, operator-independent operation

NexTurner's Automation Solution

NexTurner Technologies designed and delivered a comprehensive automation program for the touchless car wash system – replacing manual sequencing with structured control logic, synchronized equipment coordination, and a fully commissioned automated workflow.



1	Automation Program Development Custom control logic engineered specifically for the touchless car wash sequence – designed for repeatability and operational reliability.	1	Equipment Coordination Synchronized control of wash systems and mechanical components – eliminating manual intervention in equipment sequencing.	1	System Integration Complete automation program integrated across all subsystems, with structured testing protocols and full commissioning support.
2	Process Flow Architecture Structured automated workflow built around input signal processing, ensuring deterministic and consistent cycle execution.	2	Sequence Control Logic Automated process sequencing framework ensuring consistent, error-free operation across all wash cycles without operator input.	2	Deployment-Ready Delivery Fully functional touchless automation system delivered and validated – ready for immediate operational deployment at client site.

Project Outcome

The automation program developed by NexTurner Technologies successfully transformed Schumak Equipment's manual car wash workflow into a structured, repeatable, and operator-independent automated system — demonstrating NexTurner's capability in custom machine automation for industrial applications.

Manual Workflow Transformed

The complete manual car wash operation was successfully converted into a fully automated process — eliminating ad-hoc operator sequencing and replacing it with deterministic control logic.

Automation Program Commissioned

The touchless automation program was delivered, integrated, tested, and commissioned — achieving full operational readiness for deployment.

Reduced Operator Dependency

Structured automation reduced the reliance on continuous operator involvement, enabling the system to execute wash cycles through programmed control logic.

Consistent Process Execution

Every wash cycle now follows the same defined sequence — delivering uniform process execution regardless of operator or session variability.

Improved Equipment Coordination

Synchronized control of all wash systems and mechanical components replaced manual coordination — improving reliability and reducing the risk of sequencing errors.

Custom Automation Capability Demonstrated

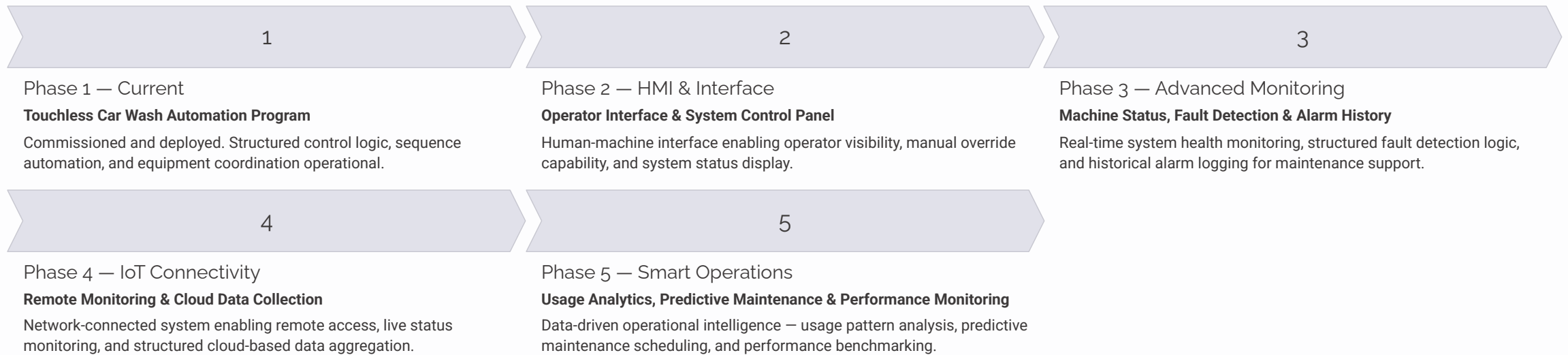
This project validates NexTurner's engineering capability to develop bespoke automation programs for complex industrial equipment — from workflow analysis through to commissioned delivery.

Foundation for Future Enhancements

The delivered automation architecture establishes a structured platform upon which advanced smart automation capabilities — HMI, monitoring, IoT, and analytics — can be progressively layered.

Future Smart Car Wash Automation Opportunities

Roadmap for Next-Generation Capabilities — NexTurner Technologies has defined a structured five-phase evolution pathway, enabling Schumak Equipment to progressively advance from the current commissioned automation baseline toward a fully intelligent, connected, and analytically driven operation.



NexTurner Technologies is proud to support Schumak Equipment (India) Private Limited in developing smarter, automated, and future-ready equipment solutions — delivering engineering value at every phase of the automation journey.

NexTurner Technologies
Engineering Intelligence into Every Machine