

FORD OTOSAN

Success Story

**From Reactive Maintenance
to Predictive Precision**



Objectives

Extend Tool Lifetime

Optimize the operational lifespan of CNC cutting tools through predictive analytics.

Increase Model Accuracy

Integrate additional data sources to enhance anomaly detection precision.

Minimize Downtime

Provide real-time alerts to operators and supervisors for early intervention.

Solution

Collect Edge Data

- Deployed edge devices to capture additional process parameters.
- Expanded visibility into temperature, vibration, and speed metrics.

Integrate Operator Feedback

- Included manual operator adjustments within predictive models.
- Improved context for tool performance and degradation patterns

Improve Prediction Accuracy

- Enhanced machine learning models using broader data inputs.
- Achieved more reliable detection of early-stage anomalies.

Enable Smart Notifications

- Delivered real-time alerts to supervisors for proactive response.
- Prevented unplanned stoppages and ensured production continuity



BUSINESS IMPACT

95%

Quality Improvement

+95% accuracy in anomaly prediction

22

Cost Savings

\$22K annual savings per CNC.



Implementation < 1 month

Full implementation in just 1 month.



Conclusion

By leveraging MaestroHub's real-time anomaly detection and edge data integration, Ford Otosan transformed its CNC operations from reactive maintenance to predictive control.

The result: measurable cost savings, reduced tool wear, and improved product quality — proving the power of data-driven decision-making on the factory floor.

