

USE CASE

RIVET GUN MAINTENANCE



CUSTOMER

Tier 1 Automotive Part Manufacturer

NEED

Avoid unplanned breakdown of rivet gun robots which results in unplanned downtime of the entire manufacturing line for car undercarriages and causes excess repair charges

OUTCOMES

- AI-based prediction of estimated days to repair reduces unplanned downtime of rivet guns and
- Avoids cost of expensive serving and repair of broken rivet guns
- Reduced cost due to unplanned line downtime

CHALLENGES

- Improve health status monitoring of rivet gun robot
- Simultaneously reduce maintenance cost

PROCESS

- Collect rivet gun error messages and analyze repair history
- Use that data to train an AI-model to calculate the remaining useful life of the equipment
- Implement the AI model and continue training it with additional data over time which boosts accuracy of the model
- Predicted remaining useful life of the equipment is used to build a maintenance calendar

SOLUTION

We developed and deployed a machine learning model that determines the remaining useful life of the rivet gun tool