

Challenge

Video based railway vehicle monitoring system

The detailed condition assessment of locomotives, railcars and passenger coaches can currently only be carried out in a relatively time-consuming manner by workshop personnel when the vehicles are parked. Apart from supporting the regular maintenance cycles, the question whether and when vehicles have to be brought to the workshop is to be detected by video or image recognition already during ongoing railway operations, with an immediate planning of required resources.

Industry Partner



ÖBB Technische-Services GmbH is engaged in the management of rail vehicles at 25 locations - maintenance, modernization, assembling, engineering, new construction and reconditioning of vehicle components as well as development of testing and diagnostic equipment. With about 4,000 employees, 35,000 rail vehicles are maintained, 8,500 different vehicle components are reconditioned and about 210,000 customer orders are processed per year

Mission

- Research and adaption of technologies (e.g. high-resolution cameras, different light spectra, necessary hardware and software)
- Coverage of a maximum surface of railway vehicles
- Target-performance comparison to keep vehicles in operation longer, determination of damages, loose fastening elements, aging and wear of components etc.
- Creation of a concept and a prototype in the TS area Graz
- Close cooperation with an internal trainee team already commissioned by ÖBB-TS

