SAROCA optimizes the maintenance process for car-sharing companies by means of a collaborative robot to increase operational efficiency and offer a better service to customers.

SAROCA offers a service to car-sharing companies for the vehicles fleet maintenance. The service includes the inner vehicle cleaning by means of a collaborative robot and the defect detection on the chassis by a machine vision software system for vehicle defect recognition.

The service offered by SAROCA optimizes the maintenance process for car-sharing companies, improving 25% operational efficiency. It also standardizes the process while allowing data gathering for analytics to improve the vehicle’s maintenance. The aim is to decrease non-operative time periods to increase productivity to offer a better service to customers.

It also increases worker’s health & safety by improving ergonomics at the work station. Nowadays this work is done manually.

The service was created and demonstrated in the facilities of a Spanish car-sharing company.
Competitive Advantages

- Automatizes the car maintenance process.
- Increases 25% operational efficiency.
- Decreases non-productive hours
- Increase workers ergonomics.
- Increases the value of assets by having 98% of the car fleet in operation.

Target Markets

- European Car-sharing industry
- European Car-rental companies
- European Car dealers
- European Car cleaning industry

Status/ Traction

- Status: pilot in Zity, a car-sharing company operating in Madrid, Spain.
- Partners: Ferrovial (ES), Ci3 (ES), Reply (IT), Car-sharing Mobility Services (ES), Ferrovial Mobility (ES).

Road Map

2020
- Robot arcade adaptation for interior vehicle cleaning.
- Machine Vision software system development for vehicle defect recognition.
- Pilot: Deployment of the collaborative robot as maintenance service for car-sharing companies.
- Go to market strategy definition.

2021
- Scalability
- Further testing.

Leveraged Technologies

The project leverages collaborative robot technology, tridimensional artificial vision systems and traction systems that use electrical servomotors. The SAROCA solution has been specifically designed and customized for this application and therefore, there is nothing similar on the market. However, once developed it can be easily exported to other locations and contracts as there is always a need for vehicle’s interior cleaning.

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