

## Purpose of the Project

- The introduction of industrial robots is being accelerated in the automotive and other manufacturing industries for efficiency improvement and labor shortages. Manual programming is required for industrial robots, so it requires huge time and cost. Especially when using multiple robots.
- RTR's solutions can automatically generate the robots motion planning even for multiple robot cells, allowing anyone to easily use industrial robots in a short time. Since it can be used commonly with 9 robot OEMs robots, we hope that it can contribute for the standardization of robot SIers works too.
- We are developing the necessary features, so that more robot users can use our solutions to improve their business.



## Details of demonstration

- Engineers in Boston HQ office developed the interface with Denso Wave's robots, that was originally not compatible with our solution, and released it to Denso as beta version. Denso evaluated it at their flexible manufacturing line that can work for coming manufacturing needs, and shared with us so that we can improve the developed features together.
- On the other hand, our new solution called Optimization have been evaluated through the trial projects involving multiple automotive manufacturers in Japan, the U.S. and Europe. Optimization can allow the robot users to get the most efficient path planning automatically instead of conventional manual programming.
- At the spot-welding line of automotive factories, Optimization can optimize the important factors such as task allocation, task sequence, anti-collision paths and interlocks, so that the auto makers can get the best project that can achieve the target cycle time.
- We have already finished the initial evaluation phase with multiple auto makers successfully and started the business discussion based on the results.



# Realtime Robotics K.K.

The project to promote the industrial robot spread and SIER business standardization

## Project outcome

- Denso Wave robot interface has limited performance because it's beta version. Based on this, we are now still evaluating the functionality we developed at some actual applications in Denso facility, so that we can improve the features based on their feedback. We expect that we can expand the use into the other users that utilize Denso Wave robots and make a business together.
- We are still proceeding with Optimization trials with approximately 20 automotive manufacturers currently, and we could achieve the good cycle time results equal to or better than what the expert engineers can do. With such partner companies that could achieve their requirement, we are considering the collaborative business at two different directions. For those who want the results better than expert engineers immediately, we need to provide the results at the requested timing. For those who look for outsourcing service that they can replace the existing method with, we can expect the regular business.

## Challenges and Solutions

- We could achieve very progressive results in verifying the feasibility of our own solution we developed. Particularly, the fact that we could demonstrate with many auto makers is the big promotion as well as our strong confidence.
- From now on, as we look to expanding into the other industrial domains, timely collaboration is one of our most important subjects, so we are going to deal with it hiring new resources and coworking with domestic SIER partner companies.

## Future plans

- We hope to contribute to making industrial robots more familiar and easy-to-implementable solution by expanding our solution into the new field such as logistics, semi-conductor manufacturing and food services. Furthermore, we are going to strength our promotion activities so that we can help the small-middle sized SIERS improve their business environment by standardize their existing works.