

Updating equipment without any interruptions to development

A trustworthy partner for engine inspections and evaluations



Toyota Industries Corporation



Toyota Industries Corporation Hekinan Plant



Engine Division, Product Evaluation Dept.
Technician Room Equipment Group 1
Group Manager, Mr. Nonoyama



Engine Division, Product Evaluation Dept.
Technician Room Equipment Group 2
Group Manager, Mr. Kondo

◆What type of work do you do?

I am in charge of the introduction and management of testing equipment used for the evaluation of stand-alone engines. These evaluations help to further improve quality and identify issues during the development phase. Technician Room Equipment Group 1 is in charge of the equipment used for stand-alone engine evaluations, and Group 2 handles infrastructure-related matters of larger equipment. Both groups are responsible for everything from specifications assessment to various applications, and coordinating with contractors.

◆What kinds of machines and equipment were adopted?

We're currently updating equipment for the evaluation of performance and reliability for stand-alone engines. This will include updating all equipment within the current building, including supplementary equipment, which totals to 17 rooms. These updates have been taking place since FY 2023, and will continue in sequence until FY 2027.

◆Were there any issues that came with installation?

There have been major situational changes since I was consigned this role in FY 2023. At first, the plan was to update all 17 rooms within a 4 year span. However, it soon became apparent that we could not handle the work alone, and needed to enlist help from TTDC. Furthermore, issues with engine quality also emerged, and dealing with business environment shifts and other concerns became too much. The hurdle of implementing new equipment suddenly seemed so much higher.

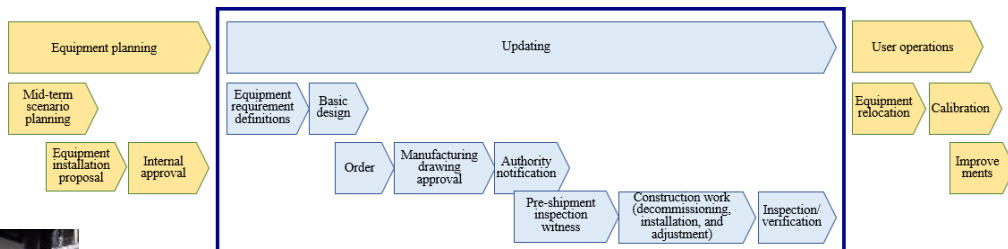
Compared to implementing new equipment 10 years ago, it is now much more necessary to keep up with the Toyota Group as a whole. This meant revising our safety mindset. As these kinds of requirements piled up, our own wishes also increased in turn.

Also, the current division didn't even exist at the time of my consignment. The renovation for the 17 rooms was originally planned for developmental equipment. However, after discovering quality issues and revisiting and clearly defining our work, we decided to split the work into specific roles. As a result, work related to equipment was organized, and our range of work was expanded.

We also need to focus on challenges such as the acquisition of human resources and the passing on of knowledge. When implementing new equipment such as this, expertise and experience is required from the planning stages all the way until actual use. Personnel capable of handling these steps are difficult to find. For this reason, we do our best to find the necessary personnel through mid-career recruitment.

Becoming indispensable!

Building accurate development environments through our proven track record



Engine Test Equipment

Viewpoint	Initial expectation	Results
Q: Quality	Implement as planned	Define requirements using accumulated know-how and turn them into reusable assets
C: Cost	Implement within budget	Cost reduction through VE/VA (5.8%)
D: Daily schedule	Complete according to schedule	Review and adjust the schedule to bring it forward (5 months)
Accumulated results ▶ Indispensable partner		

Equipment implementation process and TTDC's value

◆Could you tell us why you choose TTDC?

To be honest, we didn't even consider any organizations other than TTDC. I've been working in this field for more than twenty years, and we have worked together with TTDC since the days of the former Toyota Max to introduce LA equipment while learning from TTDC's guidance. More than anything, it is the long-standing trust we have built together that helped us make the decision. TTDC also has a wealth of experience and expertise in implementing equipment at Toyota Motor Corporation. When it comes to the demands of performance evaluations, such as measuring more precisely and making results more visible, they are able to provide insights beyond what we can offer ourselves, which makes them an invaluable partner. At times, we make challenging requests, but we have the peace of mind of knowing that TTDC will do everything they can to meet them.

◆What were the benefits of adoption?

We are making steady progress with the plan, and I feel that TTDC is an essential part of making it happen. The initial schedule and cost constraints were very demanding, but thanks to TTDC's hard work, it now looks like we may be able to move the schedule forward and complete the project earlier than originally planned. This is thanks to the tremendous effort and creative problem-solving by TTDC on-site to make the necessary adjustments while ensuring that development could continue. As a result, we have been able to significantly reduce the effort required to install the equipment while maintaining quality, and we are seeing benefits that exceed our expectations.

◆Could you tell us about your plans for the future?

First, by the end of FY 2027, I would like us to work together to successfully complete the equipment-related work for the remaining five to six rooms. To date, TTDC has primarily supported us during the implementation phase, but going forward I hope we can work together from the proposal stage to determine the best way to divide responsibilities. In addition to equipment implementation, we hope TTDC will continue to work alongside us in new areas, such as building test environments and IT. We hope TTDC can complement our capabilities by sharing the specialized knowledge and experience they have accumulated over many years. With that in mind, I hope we can continue our relationship for many years to come.



Back row, from the left: Mr. Yokota (TTDC) Mr. Nonoyama, and Mr. Kondo (TICO)
Front row, from the left: Mr. Nakanishi, Mr. Mizumura, Mr. Nuibe, Mr. Jinno, Nakai (TTDC)