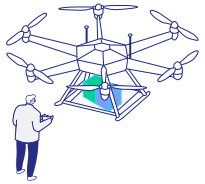


Members (from left)
1. Hirofumi Kurotaki, Engineering Solutions Division, Engineering Department (Project Management Advisor)
2. Shingo Yoshida, Technical Development (Project Leader), Production Engineering Division, Engineering Department
3. Koto Itaya, Engineering Solutions Division (Engineer), Engineering Department
4. Shoji Honda, Deputy Manager, Engineering Solutions Division, Engineering Department



Special Feature

Taking on a Challenge into the Unknown Developing Japan-Made Drone

Taking on an all new challenge

Kurotaki The driving-force for developing a Japan-Made drone came from the executive officer in charge of the Engineering Sales Offices Department who wanted to do something completely new and different. That's when the idea came up to use the carbon fiber made at our Kanagawa Business Office to create a Japan-Made drone. As discussions moved forward, the decision to create the largest drone ever made in Japan became the first step in a major challenge. The development team was recruited from various departments, and the project started off with a trial-and-error approach.

Honda It was suggested that the person who had previously led the EV concept car production project lead this project. However, from the perspective of talent development, we focused on a different person this time. Eventually, Mr. Yoshida was chosen. Do you remember how you were appointed as project leader?

Yoshida Yes. It all started when the executive officer in charge approached me directly. My experience working in a carbon fiber manufacturing facility, combined with my sales experience, led to my selection as project leader.

Kurotaki I heard this is your first time as a project leader. Were you nervous about the role?

Yoshida I would say so. At first, I was unsure about exactly where to begin. Yet, I was fortunate to have an open and communicative team where it was easy to talk to supervisors and colleagues. In particular, I was able to consult with my seniors on various matters, which allowed me to move the project forward smoothly.

Honda After Mr. Yoshida was chosen as the leader, Mr. Kurotaki joined as the project's advisor. Since we also needed to get the plant at head office running, we brought in a representative from the head office, and further solidified the team with members from each department, including production management, procurement, and manufacturing. Mr. Yoshida, what was it like actually running the project?

Yoshida By bringing together individuals who are active in their respective fields and focusing on allowing each person to fully utilize their strengths, I came to realize the importance of solidarity in working towards a common goal, as well as the difficulty of leading such.

Persevering despite difficult challenges

Yoshida Since drones were a first for Topia, gathering detailed information for the manufacturing process was daunting. In my regular work, I'm often involved in the production of racing parts for two-wheeled and four-wheeled vehicles, so I was able to utilize my experience in areas such as strength and weight reduction. However, the biggest obstacle was our complete lack of knowledge about "propellers," which are necessary for flying, rather than driving. Therefore, with the help of the experts at Drone Technology Institute Co. Ltd., who study flying objects, we all went through a process of trial and error within a short period of time.

Honda Since we had already decided to exhibit at Japan Drone 2025, we only had five months to develop our drone, so we were all working frantically, building it by trial and error, and even taking the propellers to the test flight field to do tests. This was a first-time experience where we absorbed a lot and felt a sense of growth professionally.

Kurotaki The testing was fast-paced, starting immediately after drawing the blueprints and creating parts, all while being assisted

by the staff at Drone Technology Institute. Analysis software and calculations can make some predictions, but they don't always reflect reality. We aimed to create the drone by repeatedly making improvements after each failed flight test. The efforts of those on site and the accurate advice and proper testing environment provided by Drone Technology Institute were aided by a bit of luck. I think all these elements came together nicely.

Honda The tests were tough, but there were actually a number of other major challenges as well, weren't there? Initially, we had outsourced the assembly of the drone. Then, about two months before the scheduled start date, they declined, forcing us to hastily handle the assembly in-house. We were in complete disarray due to the unexpected situation. Yet, everyone was able to approach it positively thanks to Topia's Management Principle of the "Spirit of Challenge."

Yoshida When it came to the in-house assembly process, I felt less like it was not possible and more like we could actually do it. I think that sticking to that belief ultimately led to our success. It was precisely because Topia has a culture of "giving things a try" rather than focusing on whether we can or can't do it that we were able to work together and accomplish our goal as a team.



Circular environment of young employees taking on challenges and growing professionally

Honda Thankfully, our exhibit at Japan Drone 2025 generated more buzz than we had anticipated. At that time, we were also invited to exhibit in 2026, so we plan to exhibit again next time. With the goal of creating another hit exhibit, we have asked up-and-coming Ms. Itaya to take the lead, and preparations are steadily underway. By the way, what was your experience like working on the project, Ms. Itaya?

Itaya Since I was only in my first year at Topia, I often found myself overthinking things and worrying about them. Having my supervisor by my side so I could consult with them made me feel like I was being given the opportunity to take on a new challenge, which made me happy.

Honda Is there anything about the project that particularly stands out in your mind?

Itaya We ended up using a 3D printer that uses resin, and since I didn't know anything about it, I asked my supervisor all sorts of questions. However, it turned out that my supervisor wasn't very knowledgeable about 3D printers either, so we ended up researching it together. Also, Mr. Yoshida and Mr. Kurotaki have been very easy to talk to from the first time we met, and they answer questions and concerns in detail and thoroughly. It was a very comfortable working environment.



Everyone has a lot of experience and is constantly improving, so it's tough to keep up, but I'll do my best.

Honda I have high hopes for you. I would like Ms. Itaya to not only focus on preparing for the exhibit, but also, with the support of many senior colleagues, aim to create a versatile product using a variety of materials, including metal, carbon fiber, and resin. Let's take on this challenge together.

Itaya I feel like I've been entrusted with various responsibilities from an early stage. Since joining Topia, I've realized that I'm suited to jobs that require me to think and then act. I feel that this is an environment where the "Spirit of Challenge" is deeply rooted, just as stated in our Management Principles. Going forward, I want to approach my work with the mindset that no matter what it is, I'll give it a try!