

Fly, Drone, Fly!

Team #1,
Journalism School,
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Laser Terrain Mapping

Futaba Inc. in Tomioka Town

Futaba Inc., located in Tomioka Town, Futaba County, Fukushima Prefecture, is actively involved in town development after the disaster through drone-based surveying and design. With its technology and expertise in revitalization and disaster prevention accumulated over the years, they are also undertaking initiatives with a global audience. During our visit to the company in Tomioka Town, we spoke with various members, including Mr. Satoshi Kishimoto from the Sales and Planning Department, to learn about the company's philosophy, initiatives and efforts in town development since the disaster. (August 3rd, 2023)

Tomioka's Future: VR

Futaba Inc. is contributing to post-disaster town development using drones. Based on the data, (measured by the drones), the company is creating predictive VR (Virtual Reality) models for the future construction of cities and roads.

Drones are capable of stable flight even in windy conditions. Furthermore, they can gather data in a 330-degree range using lasers, enabling measurements from a bird's-eye view.

There are two types of measurements: photogrammetric and laser measurements. In photogrammetry, multiple surrounding photos are synthesized to create a map.

However, where trees obstruct the view from above, only tree data is obtained. But laser measurement beams pass through the spaces between trees and measure the reflected waves that reach the ground. This enables ground data measurement without obstruction or capturing trees in the dataset.

Examples of application include agricultural land, artificial and natural slopes, subtle elevation differences (small changes in topography), rivers and levees, forest information, and erosion control. These technologies are being utilized to contribute to the revitalization of Tomioka Town.



A drone equipped with lasers is contributing to community development.

With the Spirit of Sixteen Thousand, Taking on the Challenge of Creating "Tomioka Wine"

This company aims to create a new town centered around wine and supports the "Tomioka Wine Domaine" through their business activities.

Wine matures and becomes more delicious with time. Similarly, there is a hope that Tomioka Town will continue to develop and prosper in the future, embodying the same sentiment.



Mr. Satoshi Kishimoto, who guided us.



The grapes are still green.

The company is currently cultivating ten thousand vines, and there are plans to increase it by an additional six thousand. The total, "sixteen thousand," corresponds to the pre-disaster population of Tomioka Town. This reflects the company's desire to cherish the thoughts and feelings of each town resident, including those who have evacuated.

The vision is to promote an attractive town development, including wine, and increase tourism from other regions, creating a region that can be enjoyed by both adults and children.

Our Visit to the Museum

We learned about the damage caused by the Great East Japan Earthquake in detail, a topic that is not often covered in school. Among various exhibits, there was a keyboard harmonica that was used in an elementary school. The keys had come off, transcending time. Despite being broken, it seemed to carry a living spirit, as if it were still searching for its owner who is no longer with us. (Yusei Honda)

On August 3rd, we visited the "Great East Japan Earthquake and Nuclear Disaster Memorial Museum." What left a lasting impression was the fact that tsunamis can travel at speeds exceeding 10 meters per second. During the Great East Japan Earthquake, many people were taken by surprise at the speed of the tsunami, leading to tragic outcomes where some couldn't escape in time and lost their lives, while others went missing. In the event of an earthquake, I want to evacuate to higher ground as quickly as possible to avoid the impact of a tsunami. I realized that facing a disaster without proper preparation can be extremely dangerous. I once again felt the importance of being prepared for sudden disasters in our daily lives. (Ryota Suzuki)

For the Local Community

Ms. Kana Hozumi from the Regional Design Division mentioned, "Futaba Inc. has received support from the local community even before the disaster, so we want to contribute to the reconstruction and revitalization of Tomioka Town as a way of giving back."

Tomioka Town, affected by the nuclear power station accident, experienced delayed cancellations of evacuation orders as compared to other municipalities. Additionally, there are still areas within the town that remain difficult to return to, resulting in disparities in recovery and reconstruction, both inside and outside the town. Due to the extended period that evacuation orders stayed in place and established living conditions at evacuation sites, the return rate is low.

In response to these circumstances, Futaba Inc. is engaged in facilitating resident-led town development and supports them in the process. They gather opinions from residents, local businesses, experts, and government agencies to collectively contemplate the type of town development that is needed. The company aims to create an appealing town through collaboration and understanding the diverse perspectives within the community.

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