



Principal Investigator

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Adopted Theme

Practical Deployment of Visual Inspection for Glossy and Transparent Objects via Integration of Event Cameras and Computational Imaging

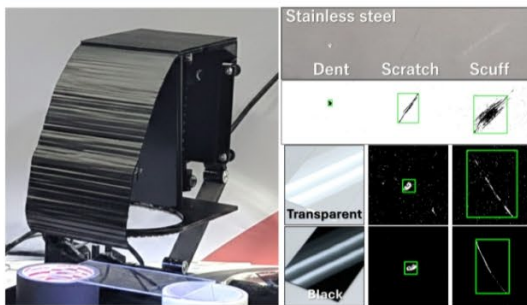
Subject of Research

Practical Deployment of Visual Inspection for Glossy and Transparent Objects via Integration of Event Cameras and Computational Imaging

GTIE VC Collective

Incubate Fund KK

Overview



Building on the first stage, which demonstrated the feasibility of applying our computational imaging technology—integrating event cameras with modulated light sources—to the inspection of glossy and transparent objects, and which established quantified market scale centered on the automotive industry along with inspection system design specifications, this second stage advances the practical development of inspection systems targeting real manufacturing environments. As an initial deployment, we will commercialize a desktop inspection machine that enables even relatively inexperienced inspectors to make high-quality judgments, with a roadmap toward full automation of visual inspection. This approach addresses critical social challenges in manufacturing, including severe labor shortages and rising training costs, while driving fundamental innovation in manufacturing processes premised on full automation—ultimately creating an inspection solution company that supports sustainable business operations across the manufacturing industry.

Business Models (when applying)

Centered on the sales and maintenance of visual inspection systems for the manufacturing industry, we are building a phased revenue model. Initially, we will accumulate inspection data through the sales of desktop-type devices, subsequently expanding to high-value-added systems integrated into production lines. Furthermore, we will secure recurring revenue through subscription services offering data-driven analysis and process optimization proposals. Looking ahead, we also envision collaboration and licensing arrangements with equipment manufacturers, leveraging our established technology foundation and intellectual property portfolio.

Activity Planning (when applying)

This project will be carried out over two years from 2026 to 2028, advancing in phases from technical validation to commercialization preparation. In the first year, we will design and develop a prototype system while clarifying applicable inspection targets through customer interviews and sample verification. In parallel, we will quantify the market scale, formulate a business plan, and accumulate validation data demonstrating our ability to solve key challenges in the initial target market. In the second year, we will enhance the prototype based on customer feedback, focusing on improvements in operability, stability, and detection accuracy. We will advance paid proof-of-concept trials with multiple prospective customers, aiming to secure letters of intent for adoption. Additionally, we will increase product value by building an inspection data database and implementing automated defect classification capabilities. Furthermore, we will establish manufacturing and sales partnerships for mass production, develop the management team, and expand our intellectual property portfolio—completing all preparations for prompt company incorporation and fundraising upon project completion.