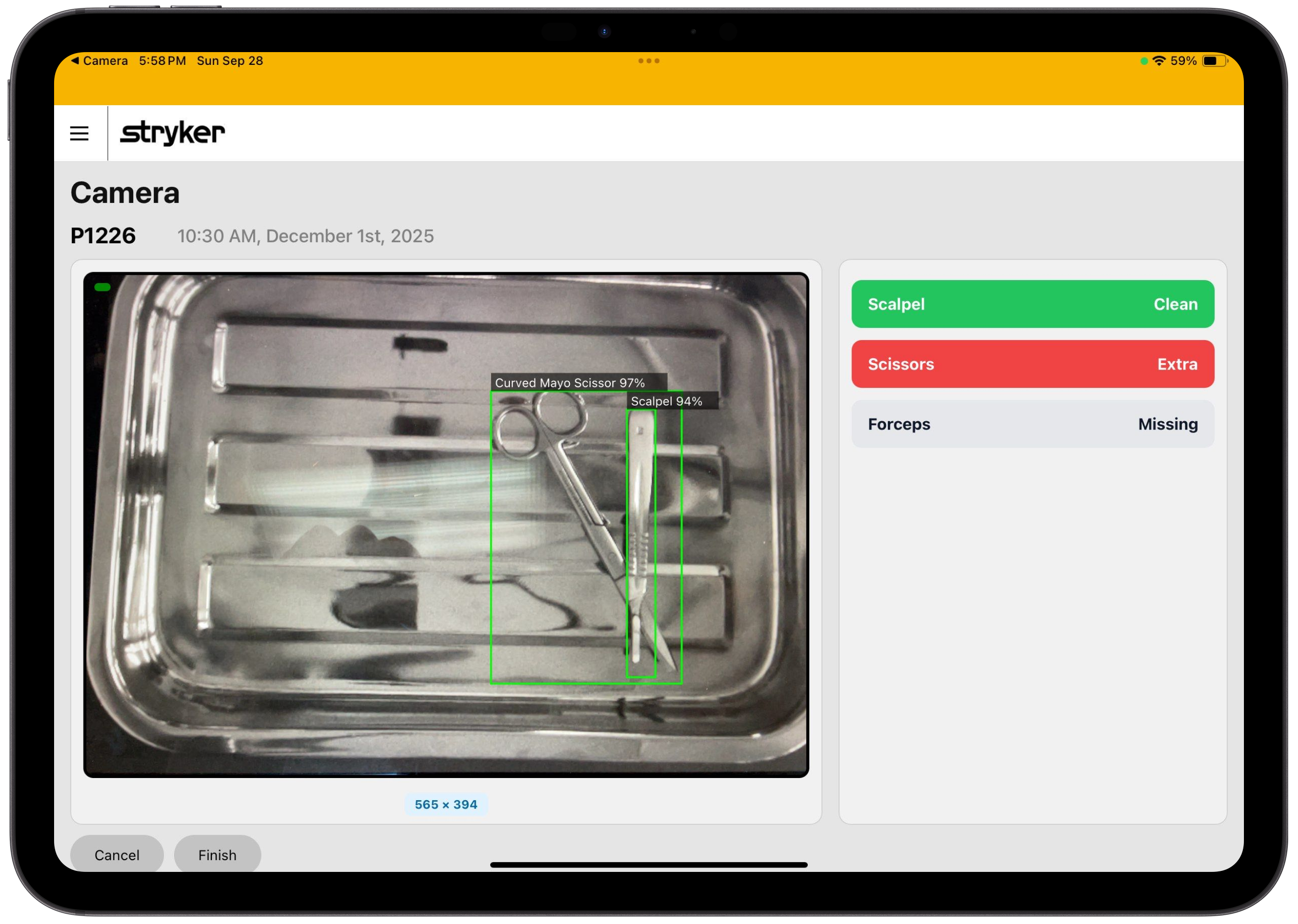
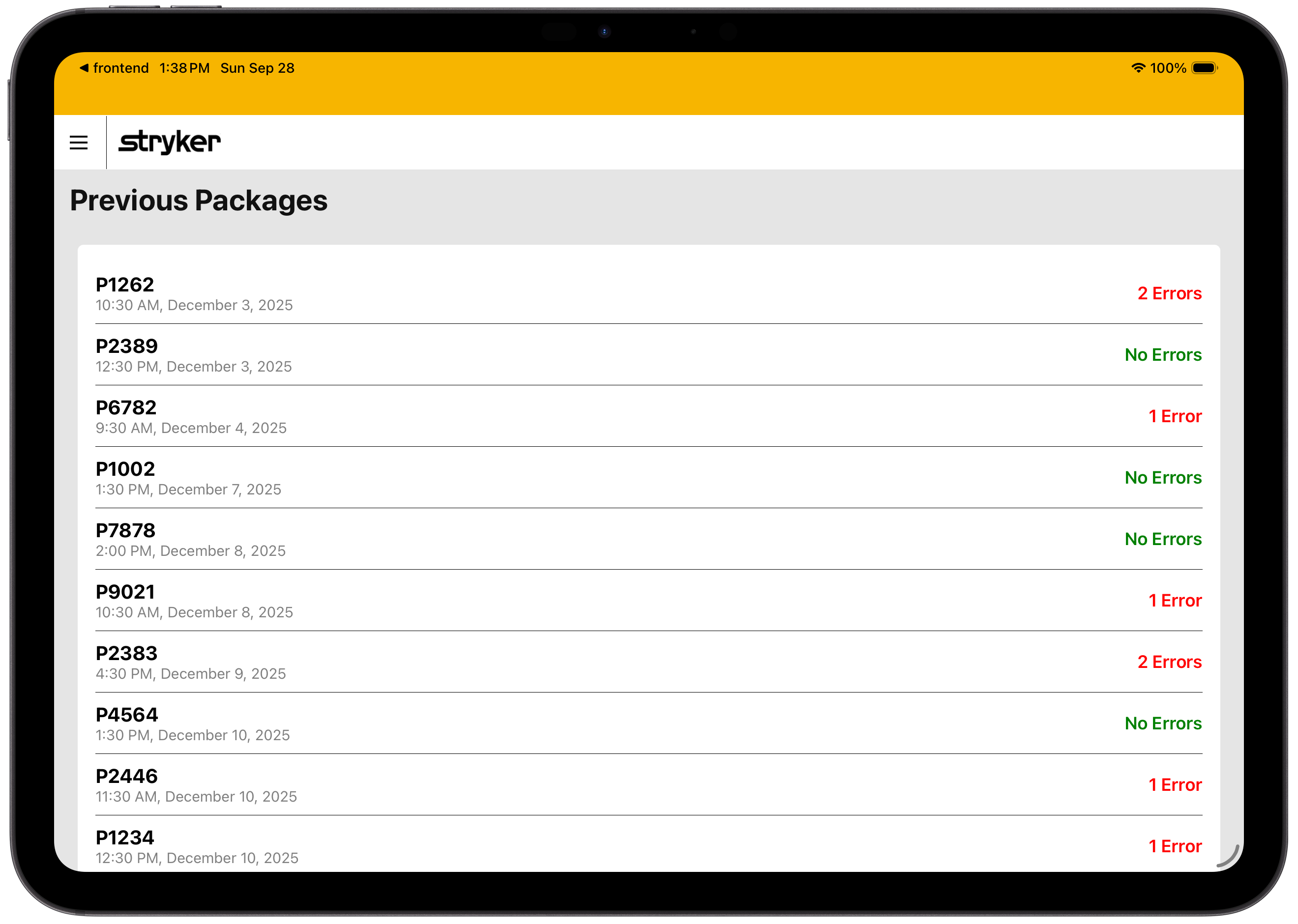
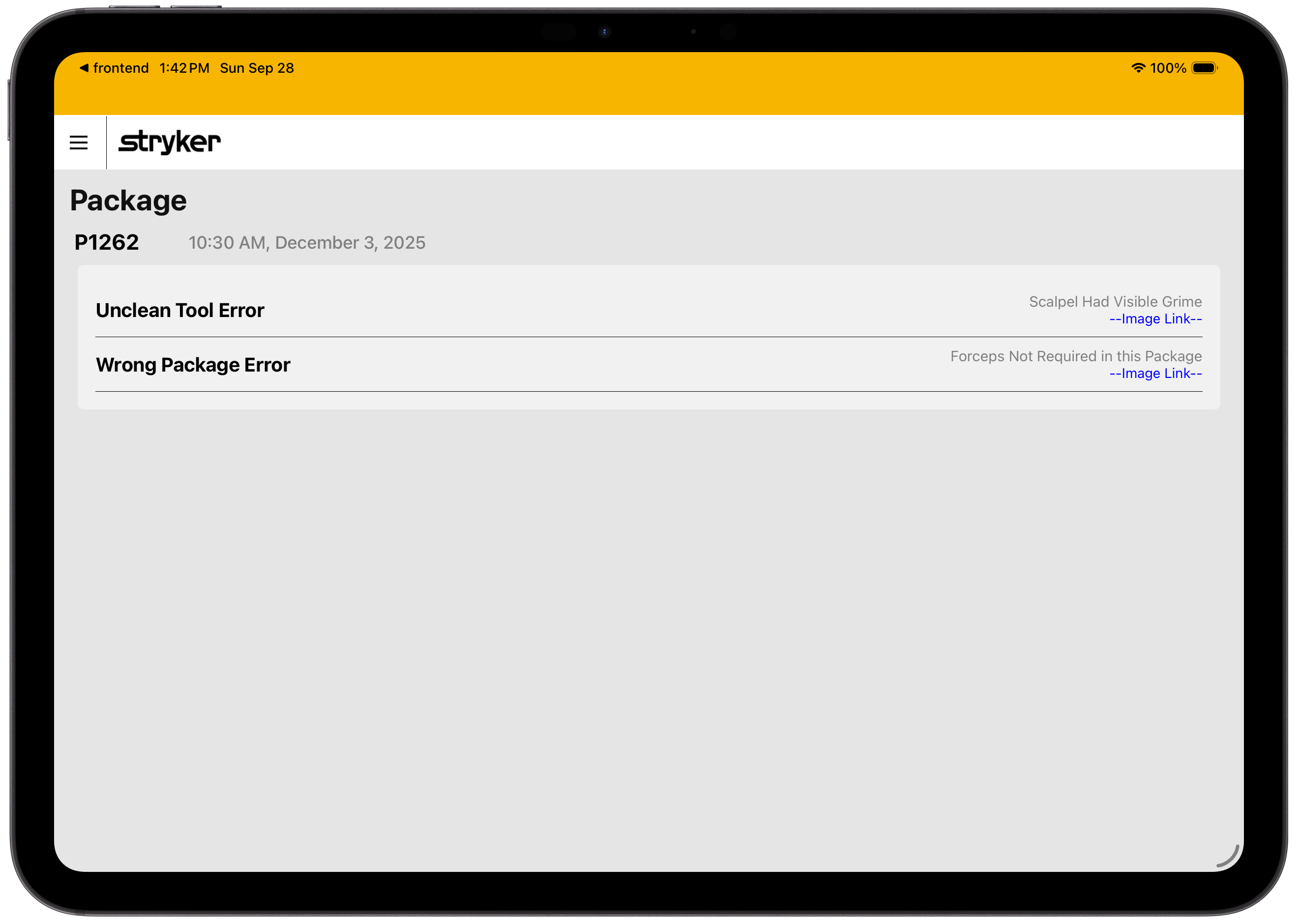
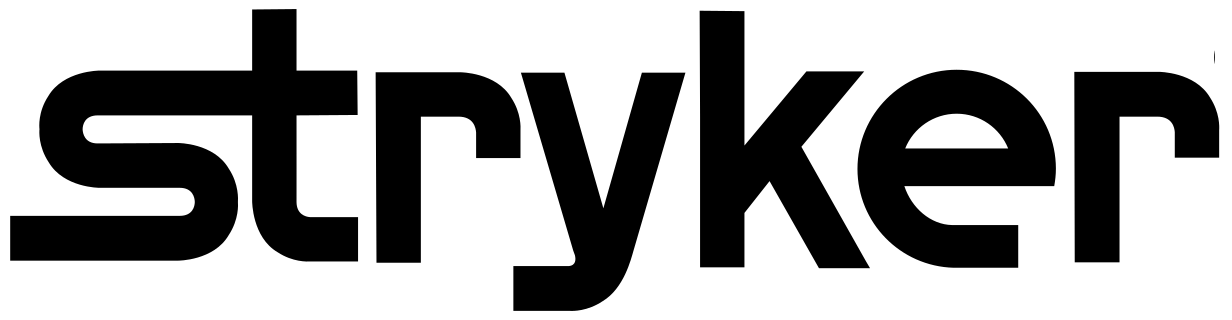
Design Day Booklet Team Page







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Stryker IST

Project Sponsors

Martin Griffin

Orange, California

Patrick Lafleche

Portage, Michigan

Shereen Sairafi

Denver, Colorado

Slaven Sutalo

Portage, Michigan

Michigan State University

Team Members (left to right)

Noah Vermeulen

Shelby Township, Michigan

Jerry Chen

Chicago, Illinois

Benjamin Eyke

Williamston, Michigan

Ismail Abdi

Dadaab, Garissa, Kenya

Lee Sullivan

Singapore, Singapore

Suhas Rao Cheeti

Commerce Township, Michigan



Stryker is a global leader in medical technologies, offering innovative products and services to improve healthcare for patients globally, influencing over 75 countries serving over 150 million patients.

Hospitals around the world have Sterile Processing Departments (SPD) for sanitizing and packaging tools used in Operating Rooms (OR). When packaging tools in the SPD sometimes tools are broken, soiled or missing and go unnoticed. By the time those tools are found in the operating room, it costs valuable time and money to replace them.

The Clean & Sterilized Instrumentation application mitigates this issue by monitoring tool packaging within the SPD and notifying SPD Technicians of unfit tools.

When the user opens the application, they sign in as an SPD Technician or an OR Manager. The SPD Technicians select what package they are fulfilling, progressing them to the camera page that utilizes the device camera to monitor the packaging of tools. The application knows what tools are required within the package and identifies tools that are broken, soiled or missing. The SPD Technician also has access to previous packages fulfilled under their account.

The OR Manager has access to all previous packages filed by SPD Technicians under their management. The application tracks how many errors it finds, calculating the time and money saved by catching those errors at the SPD stage.

Our application uses React Native, JavaScript, TypeScript, and Swift for the front-end architecture. The back-end architecture uses Python and FastAPI, with the AI model implemented with YOLO and PyTorch. Package and Tool data is hosted on a PostgreSQL server.

3200/3300 Hallway | Third Floor, Computer Science and Engineering 8:00 a.m. – Noon | CSE498

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