

# Capmation helps Novidan **automate** its quality control processes.

## Service Provided



### Full Stack Development

## About Novidan



Novidan was founded in 2018 on the principle that hearing is essential to life. As such, the company believes hearing aids should be affordable to all, regardless of economic status. So Novidan's team of experienced engineers and developers set out to prove that great design, high quality, and performance can be achieved at a fraction of the cost. Now, two years later, it's clear the company has accomplished its mission.

## Benefits

- Improves ROI needed to scale by automating manual processes and modernizing data
- Decreases testing and programming processes by as much as a third
- Improves data accuracy throughout the line

## Challenges

Novidan designs and manufactures hearing aids. But, before any of its products go out the door, the hearing aids are put through a series of steps that update the firmware, test acoustics and wireless characteristics, and program the final settings for the user. The company knew the tools it was using to complete these steps weren't as efficient as they could be. The process was cumbersome and required operators to enter data manually.

"It was taking upwards of fifteen minutes to process a single hearing aid," said Pete Salmi, CEO of Novidan. "As we scale up, we knew we had to get that down to five minutes or less. We wouldn't be able to grow if we didn't develop software to make us more efficient on our line."

Another problem was getting the data that's collected on the manufacturing line—as well as the acoustic and the wireless test data—into a format that's accurate and tied to the serial number of the devices. Because the current process required manual data entry by Novidan's operator, it was prone to error.

"We knew we had to get the data accuracy to the highest level possible. So two problems existed that we needed Capmation's help to solve," he said.

Novidan asked Capmation to help create custom software tools that automate the process by testing the quality and programming the settings of its hearing aids from start to finish.

## Solution

"When we called on Capmation and engaged their team, we were able to work through—in just a matter of a few weeks—an architecture and a system to create three different modules that we needed in our hearing aid process. One to update firmware, another to test acoustic and wireless characteristics of the hearing aids, and another to put in the final settings," said Salmi.

Automating the steps allowed Novidan to balance its manufacturing load throughout the process, as well as provide high accuracy and high quality.

"In terms of ROI, it saves us a significant number of hours. We're processing hundreds of devices typically within a few days, so the turnaround time has been cut by about a third," he said.

As a startup, Novidan needed a development partner who could tailor the process to its needs and budget, without compromising on accuracy and efficiency. Salmi said before founding Novidan, he came from a large company with hundreds of people in R&D, an ample budget, and a rigid manufacturing process. He knew those same processes wouldn't align with the structure and budget of his new company.

"Capmation was the perfect choice because they were able to be flexible with us. A lot of companies have a certain process on how they want to engage and do things and they don't deviate from that. If you're working with a startup, especially,

you have to be nimble...you have to hustle. So it was really refreshing to have Capmation tell us 'whatever process and engagement you need, we'll right size to that,'" said Salmi.

To keep the team informed and on track, Capmation's developers had a standup meeting with Salmi each morning to discuss the progress of the project—what was done the day before, what was to happen that day, and if any roadblocks existed. Because Capmation's team works in the same time zone, he said it made collaborating that much easier.

"It's been refreshing and easy. It's been low effort on the project management side, which is perfect for a startup like us," he explained.

Capmation created the custom software in just a matter of months, a shorter timeframe than Salmi anticipated.

"With a handful of Capmation's developers and me writing requirements and testing, we are able to do a considerable amount of work in about half the time because of the process we used, the knowledge Capmation had, and our ability to knock it out quickly in an agile fashion," he said.

When asked if he would recommend Capmation to others, Salmi was quick to respond.

"I couldn't be happier. I would definitely recommend Capmation," he concluded.



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– Pete Salmi  
CEO of Novidan