

HomeEXCEPT

Creating Smart Sensors That Will Change “Aging in Place” Senior Care

With a rising senior population and the increasing costs of care, the desire to age at home has also grown. HomeEXCEPT recognized this need and moved to create a product that would not only provide peace of mind for people aging at home, but also alleviate privacy concerns often associated with using a camera. They also wanted something that would be easy to install and equally simple to understand.

Services

- Innovation Lab
- Agile Software Development
- Xamarin Mobile Development
- AI and Machine Learning
- Azure Cloud Services
- IoT Sensor Design

Effective May 15, 2020, T4G Limited merged with MNP. The case study below applies to work done by the T4G team prior to the merger.

The Challenge

Their solution was a simple concept – create a sensor that could track movement, heat, and cold, and specific activity timings so that caretakers could keep an eye on loved ones without being too invasive. It would also negate the need completely for uncomfortable wearables. What HomeEXCEPT required to make this a reality was a partner that could help them develop hardware and software, and work within a timeframe that would allow them to go to market as soon as possible.

The Approach

MNP’s efforts were two-fold for this project, focusing on both hardware and software. For the hardware component, MNP started with firmware written by HomeEXCEPT engineers and iterated versions of the sensor until it could detect and identify humans and heat/cold sources. The sensor then needed to be able to communicate between the device and the cloud (where the data would be stored) using a mobile network without requiring a home Wi-Fi setup. Finally, the sensor needed to be able to record secondary data points to compare to earlier recordings so that a pattern could be established.

On the software side of the equation, MNP worked with HomeEXCEPT to enhance their cloud data collection and analysis, as well as create a chatbot that could interact with the data collected. On top of that, MNP helped develop an application that focused on providing high-performance native experiences across all operating systems. Throughout the process, stakeholder demos were conducted to ensure everything was on track, and to adjust things as required.

The Result

HomeEXCEPT, in partnership with MNP, created a minimum viable product in only 10 weeks. Because of this, HomeEXCEPT have been able to learn and refine their sensors at a pace that they would have otherwise been unable to, while also going to market in Canada and the United States before expected. This whole process cumulated in the HomeEXCEPT's smart sensors being recognized as the grand prize winner of the extremely prestigious AARP Innovation Champion Awards in 2017. This prestigious award was a great success for this promising start up, shining a bright light on their future as a senior care provider.

“A few founders questioned why I chose to work with [MNP] instead of building my own team. When we were market ready in 10 weeks, they got their answer. The skills and processes [MNP's] Innovation Lab brought to the table were critical in getting us to market fast.”

- John Robertson, Founder and CEO, HomeEXCEPT