



RFID JOURNAL LIVE!

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Automated Sterile Glove Dispensing Machine- designed to Reduce Waste & Contamination Risk

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The Problem

- In these uncertain times, bringing a touchless identification technology to our machine's design was a key requirement. We wanted to ensure that no cross contamination takes place.
- Hospitals have surfaces that can be touched by a number of persons in a matter of minutes (such as a glove box). We knew we needed to create a solution to this contamination issue ASAP.
- We also determined that by using RFID antennas embedded in the nitrile gloves cartridges, we could track the usage inside our **iNitrile machine**, thus providing data to the facility.



The Existing Technological Infrastructure

We started off by designing a beautiful GUI on a touchscreen. And then quickly realized that giving our users the possibility of a touch-free experience was a huge added value.



| Our Technology Partner

We then chose our Technology partner based on certifications that would allow us to export our product without the risk of violating radio frequency regulations.

Why We Choose RFID?

I chose an engineering team that came from both aerospace & automotive as I knew that the industry's golden standard was RFID.

It was never a matter of picking a technology, but a journey of defining the best way to implement RFID.

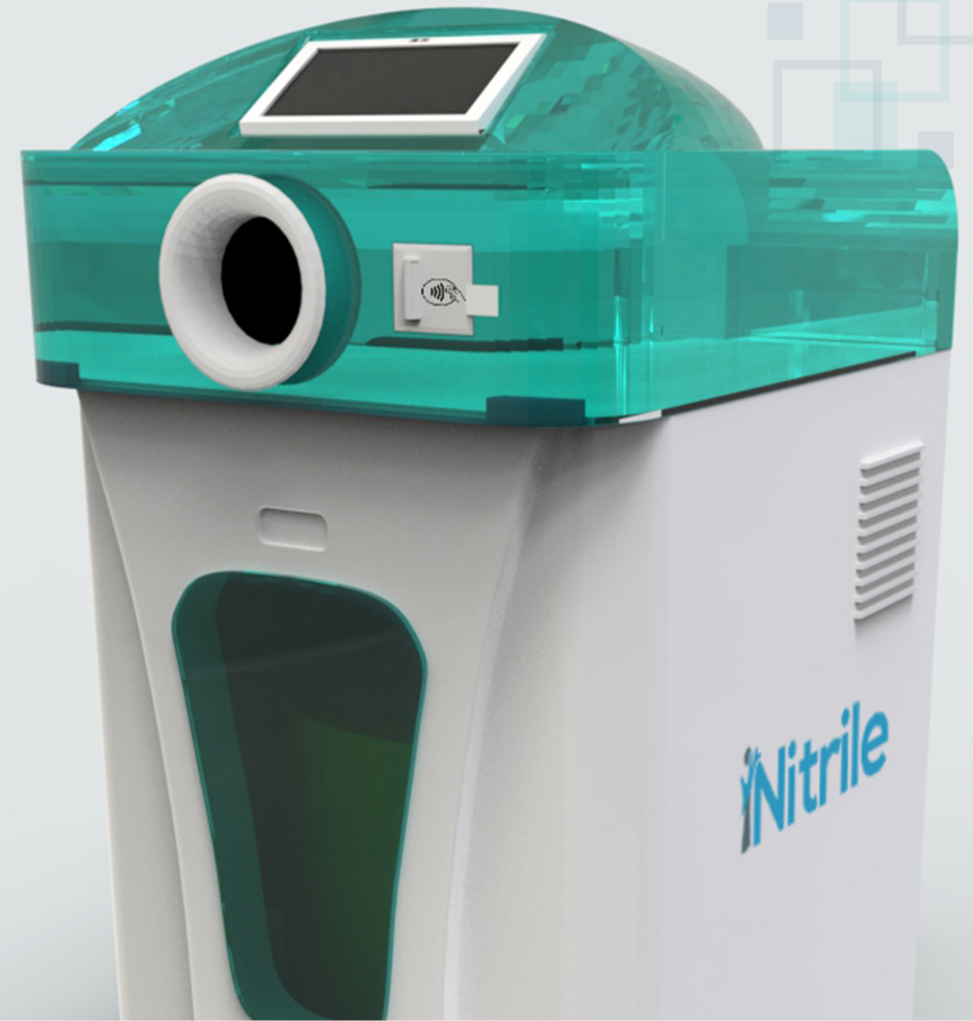


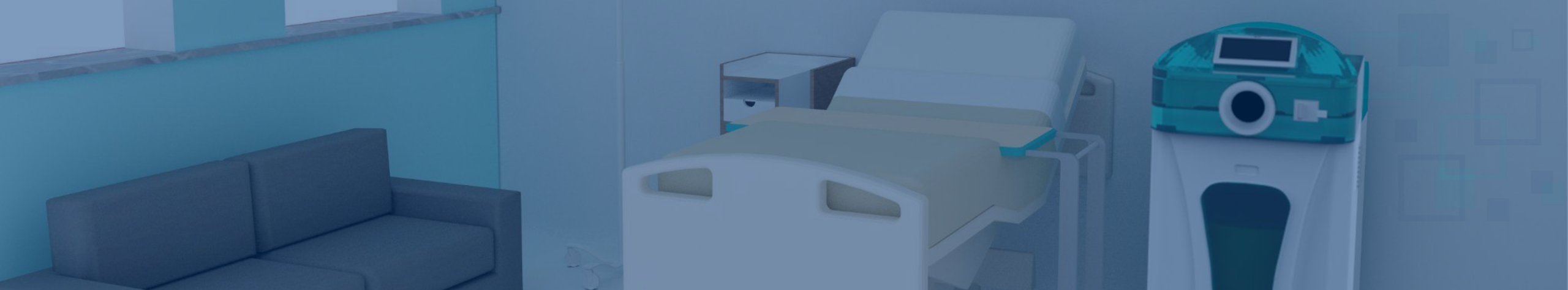
| Types of RFID

We explored both **active** (Keychain) and **passive** (Plastic Batch & Sticker) RFID technologies along the development journey.

| Why This Technology?

We concluded that using a passive antenna inside a plastic badge was the way to go for us. Every employee in Hospitals and Casinos already use a badge to check in, so why not adapt this to existing practices- avoiding complications.





Deployment & Implementation Issues

Planning the correct application was the key factor here. It is a very straightforward technology.

The Environmental Conditions of The Deployment Site

- The environmental conditions were controlled- as the RFID reader incorporated inside our machine is covered by a vacuum formed plastic component, and is intended to be used indoors



Time Frame



It took three months from the conceptual idea, to the completion of the first complete prototype of the **iNitrile machine**. Using RFID technology!

The Results

- We designed and developed a completely touch free interface. Although we did implement a secondary unidentified-user option via touchscreen as a backup.
- A user with his/her badge can now have an amazing experience of glove donning without having to touch anything.
- The user can scan the information from the badge's antenna to deliver the right glove size for each user. This is incredible!
- These abilities allow our clients/businesses to gather data in real time via our web based dashboard.



The ROI

The implementation of **RFID technology** brought incredible added **value** for our machine.



What's Next?

The next phase will be paying attention to our users feedback. This will trigger an ongoing process of upgrades and different versions/iterations that will bring new fascinating ways to incorporate the RFID technology.



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