

## Customer story

# iPourIt: “uptime 100%”

<b>Raspberry Pi solution</b>	Raspberry Pi Compute Module 3+, Raspberry Pi 4
<b>Size of business</b>	Small to medium
<b>Industry</b>	Hospitality (food and beverage)

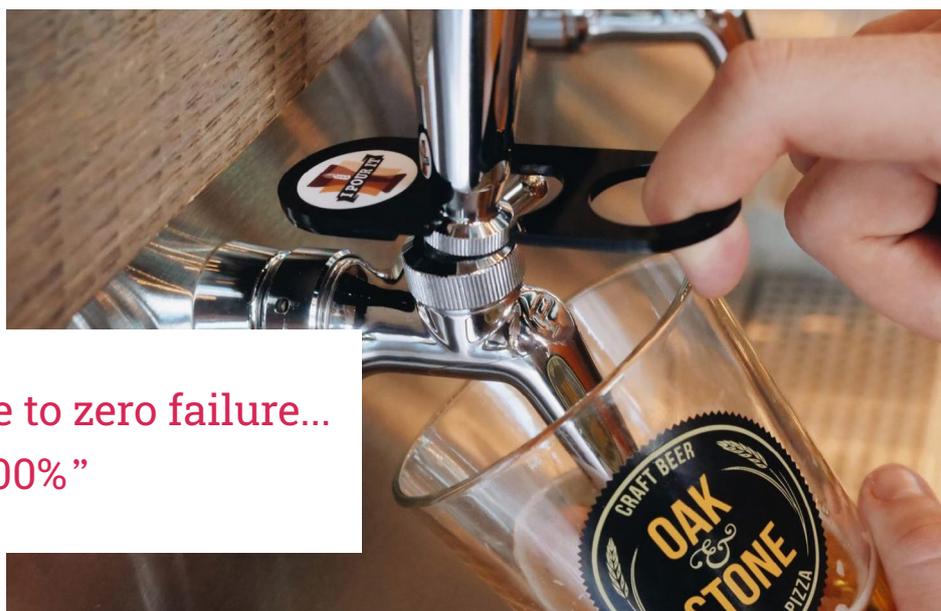
iPourIt’s CTO Brett Jones was prompted to design an automated self-pour system in 2011, after queuing for so long to order a drink that the beer he had been waiting to ask for had sold out by the time it was his turn. He designed an automated system that lets a customer choose a beer by tapping an RFID device, linked to their bar tab, against the corresponding touchscreen at the beer wall.

Bars and restaurants saw the appeal of delivering customers a faster service with less wastage, and the space-saving beer wall format also meant a greater variety of beers could be offered. The interactive self-pour concept has proven a strong selling point with customers, who just need to pass an ID age check and set up a tab before selecting and pouring their beverages.

Tablet-based self-pour beer ordering walls have now been a fixture in the US for the last decade: there are more than 5,800 iPourIt beer taps in 220 locations across the US and Canada, and two other big names in the self-pour market with which to compete.

## The challenge

By 2019, eight years after iPourIt first launched, legacy terminals that needed maintenance were proving costly in terms of refurbishment and technical support: the tablets on which its interface and ordering system depends were overdue for replacement. These Android devices of various brands had to be powered constantly and their batteries began to overheat as they reached obsolescence. And because these were consumer products with a short production lifetime and without a stable form factor, iPourIt had to work around dimensions, port placement, and button positioning that changed frequently as new models were released. A different approach was needed.



“Very little to zero failure...  
uptime 100%”

## The solution

For what became their Gen 4 system, iPourIt changed from a wired system to a full PoE (Power-over-Ethernet) system, explains CMO Darren Nicholson, removing the need for WiFi and simplifying the wiring: power and communications for everything are provided by a managed switch. Each touchscreen assembly uses a Raspberry Pi Compute Module, and the beer line controllers - one for every twelve taps - are all Raspberry Pi 4. With a valve and a meter in each line, these control and measure the beverages that are dispensed. The setup allows for accurate dispensing of beer, or liquor – the first liquor shot-dispensing version was installed in 2019 – down to the millilitre.

## Why Raspberry Pi?

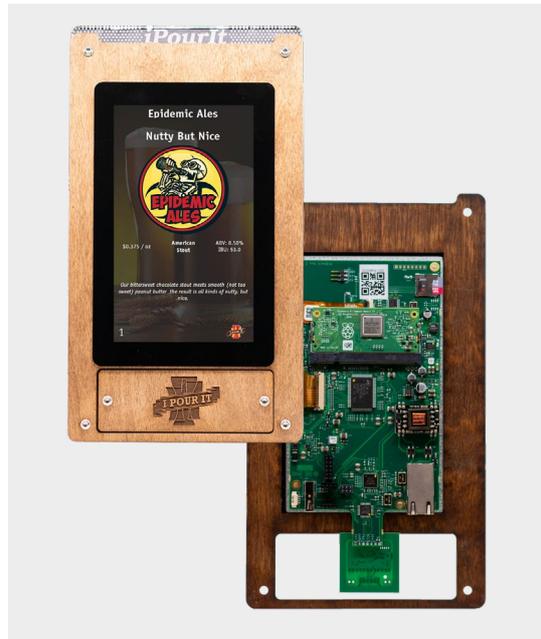
CMO Darren Nicholson has a tech background, but he wasn't personally familiar with Raspberry Pi from previous ventures. Nevertheless, he felt confident in choosing it because, as he notes, "it's been used millions of times in many different applications," and because Raspberry Pi products offered effective solutions at an attractive cost.

The SO-DIMM form factor of Raspberry Pi Compute Module 3+ Lite was appealing, and allowed iPourIt to add all the peripherals they needed. .NET runs happily on Raspberry Pi, an important consideration given the company's Windows 10 IoT .NET shop setup. And as well as providing a more powerful system than the consumer tablets, the Raspberry Pi setup allows iPourIt to remotely access customers' devices to check and control screens, flow meters and valves.

The Raspberry Pi boards fit neatly into existing circuitry and they're both easy and cost-effective to replace. This, together with their long production lifetime, gave iPourIt confidence they were choosing a future-proof option.

Switching from tablets to Compute Module 3+ also meant that iPourIt could move to using a standardised, purpose-built, industrial screen that, like Raspberry Pi products, has long-term manufacturing availability. This has allowed them to invest in injection-moulded parts for a consistent presentation.

**“able to scale our system in a simple footprint”**



## The results

In 2019, iPourIt started rolling out Raspberry Pi-controlled beverage dispensers. Nicholson was impressed with Raspberry Pi's "ability to scale our system in a simple footprint; the ease of install and being able to remotely connect with each and every one of these devices from our location in Orange County, California." This agility has certainly paid off: September 2020 saw iPourIt's busiest month of installs to date.

"Right now we are probably 20% less expensive than our nearest competitor, so price-wise, how [Compute Module] has been designed has really allowed us to reduce the acquisition cost for our operators," says Nicholson. CTO Brett Jones also praises the Raspberry Pi's reliability. "Very little to zero failure [...] uptime 100%", he comments.

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