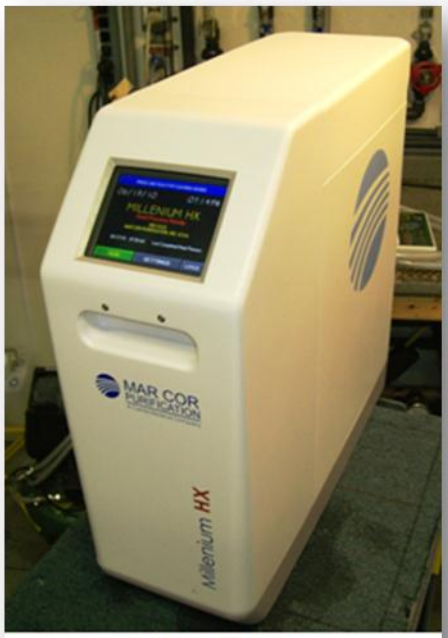
UNITRONICS®

Application Story

Vision350™ and Vision570™ Speed development of a Portable Reverse Osmosis for Medical Applications

Mar Cor Purification, Inc. specializes in manufacturing pure water and disinfection products for the Life Science market, and is a key supplier to the dialysis market. Their accelerated development of a new medical heat sanitizable portable reverse osmosis system (pictured below), came with the need for a compact control circuit and a 'friendly' user interface. The availability of Ethernet communications was considered a desirable feature for the end user. While testing various competing brands of electronics, Mar Cor was introduced to Unitronics by their local distributor. "The Unitronics product had many attractive standard features." said Mar Cor R&D Engineer, Clint Hulme. "It became quickly apparent through testing that the Unitronics products offered more bang for the buck than other major leading brands, plus the VisiLogic software was relatively easy to master."



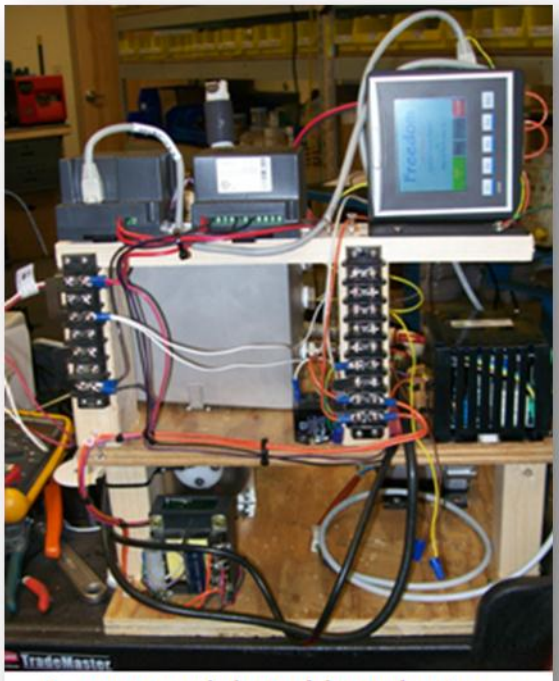
Final product (2010)

Vision570™ & Snap-In I/O Utilized

FDA approved (2011)

Initially, the Vision350™ was selected for the job- but they later switched to the Vision570™ for its size and additional features. After extensive testing, the Vision570™ was chosen to be the "brains" of their product, providing 0-5 vdc control for pump speed, relay outputs for valve and heating element control, and discrete voltage inputs for safety switches. Analog voltage and current inputs were used for pressure, temperature, water quality, plus ladder functions for event logging. They were also able to utilize the optional Ethernet feature and provide critical data to the user via email attachments. "The Vision570™ offers great flexibility in operator interface configuration in a size that nicely fits our devices dimensions, while still providing user readability." said Hulme.

"The Vision570™ is a fantastic and feature rich product!" said Hulme. "The Unitronics support team is like having a personal, well versed friend on hand. The development process went a lot smoother due to the operator interface and PLC as one, and being programmed as one simultaneously. Application samples are numerous, and application specific advice is an email away. There are no annoying hurdles to jump, no additional communications software, communications hardware, or support costs. There is no burdensome software over protection getting in the way- just layout a design and build away!"



A very rough bread-board using a Vision350 to prove the concept.

Mule #2 (2009)

The second fully functional beta unit using the Vision570™ and I/O expansion modules