BUILD WITH ROBOTS

CASE STUDY: RIO RANCHO FIRE RESCUE

June 14, 2022

Efficient technology utilized by local fire department to disinfect their fleet of emergency response vehicles in between calls within 15 seconds

INTRODUCTION

Rio Rancho Fire and Rescue (RRFR) is the sole provider of Emergency Medical Services (EMS) within the City of Rio Rancho. The Department is dedicated to serving the citizens, visitors, and businesses of the community by providing response to incidents involving fires, emergency medical or trauma, and technical rescue.[1]
Thorough cleaning of EMS equipment can be challenging, making the providers and equipment potential vectors for disease transmission. Additionally, it is difficult to identify outbreaks of new viruses and resistant pathogens posing new challenges in protecting providers and patients alike.[2]

CHALLENGES

RRFR was looking for an easy, repeatable solution that anyone can quickly implement. A handheld sprayer was being used as an upgrade to cleaning using spray bottles, cloths, and alcohol-based sanitizer. The handheld sprayer is not a consistent disinfectant application tool, needs frequent disinfectant refills, and requires additional personal protective equipment. Manual disinfection is too time consuming and requires several reoccurring material costs.

It was also important for RRFR to have data that supports how effective their disinfection method is to assure first responders that they are protected from the additional challenges created by viral pathogens.

SOLUTION

Build With Robots Inc. (BWR) and RRFR partnered together to implement a solution to protect our families. Breezy Blue Response by BWR, provides a time-controlled disinfecting solution with the capability to disinfect RRFR's emergency service vehicles in between calls, destroying harmful pathogens within 2-10 minutes of soil load contact time.

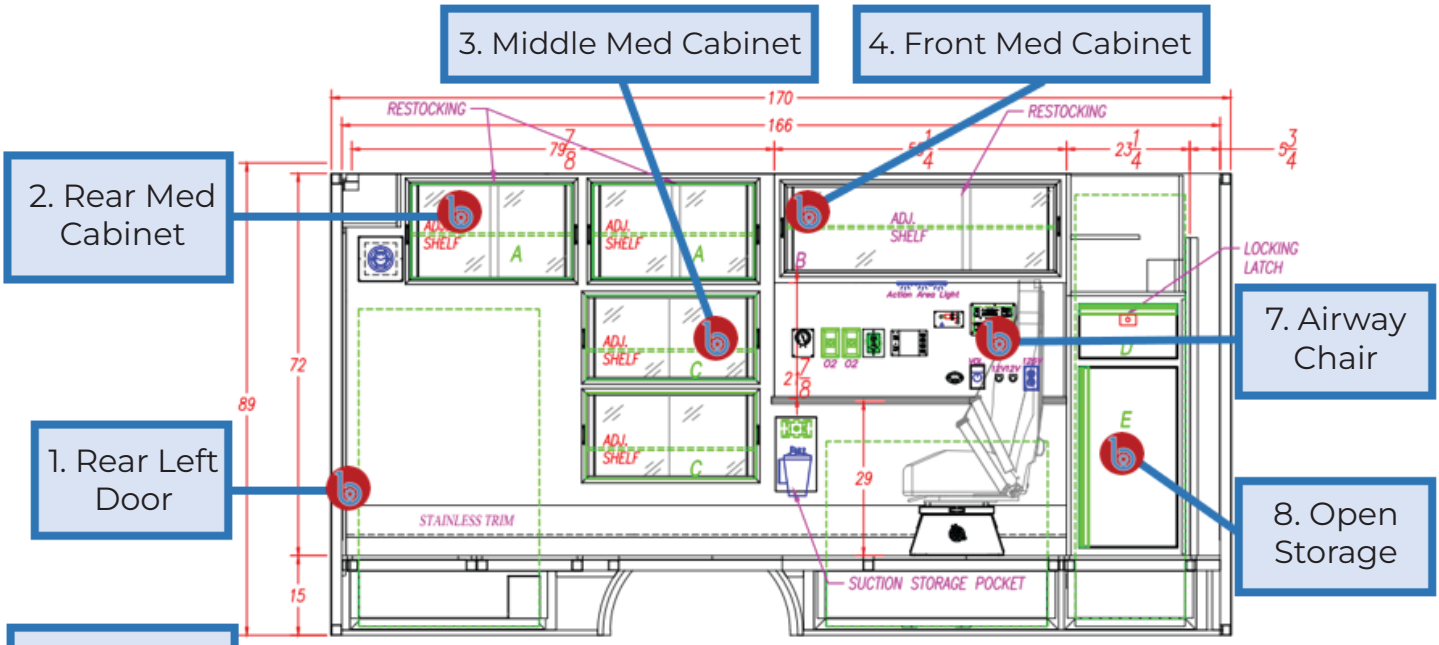
Efficacy testing performed by BWR showed the fogging technology evenly distributes disinfectant throughout the ambulance, on particulates suspended in the air, stretchers, door handles, in the driver's cab area, and hard to reach areas like inside patient care compartments (additional testing locations can be seen on the following page). The disinfectant utilized is EPA List N and List Q certified and Green Clean Institute certified. Effective against COVID-19, Influenza (H1N1), Listeria, E. Coli, Norovirus, Rhinovirus, Staphylococus aureus, Salmonella, Pseudomonas, Acinetobacter Baumannii, and Trichophyton Mentagrophytes.

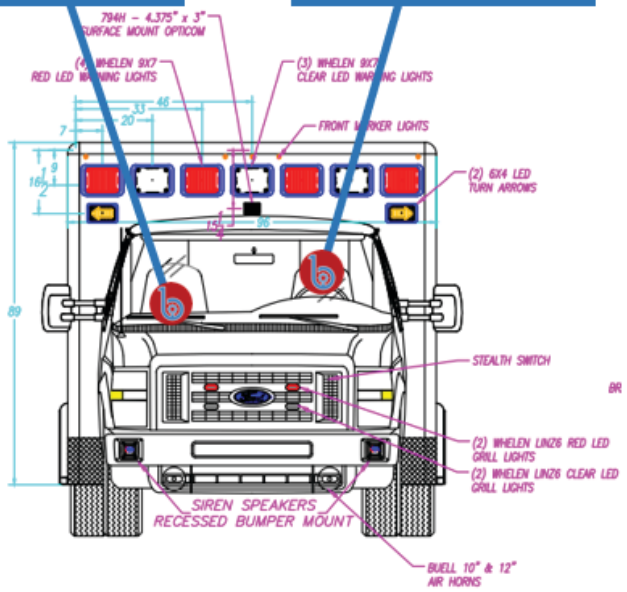
1) https://rrnm.gov/673/Fire-and-Rescue
2) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7100409/
3) https://spectrakill.com/the-us-environmental-protection-agency-approves-an-expanded-label-for-spectrakill-rtu/

These claims were proven with a soil load, meaning that the disinfectant is categorized as a one-step that does not require a pre-clean prior to disinfecting hard surfaces.[3]

Based on efficacy field testing results, it is recommended that to ensure 99.9% efficacy throughout the ambulance, the ambulance should be fogged from the right rear, with the left rear door closed, for 15 seconds, then immediately shut the right rear door. Efficacy results can be seen by scanning the QR code below.

Breezy Response is a supplemental device to be used in conjunction with Center for Disease Control and Prevention (CDC) guidelines and face covering guidelines. BWR strives to provide safe and consistent disinfectant technology that is backed by laboratory efficacy testing, as well as the development of a quick and reliable efficacy field test.





"Once the crews watched how quick and effective it is to disinfect a space, they were thrilled they didn't have to hand fog and wipe down surfaces. A testament to their belief in the product is the fact that they don't just use it in the ambulances - ***they use it everywhere in the station."***

- Captain David Hoeksema, RRFR

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