



## **COCO** CASE STUDY

# Launching in 48 hours: How Coco Robotics eliminated a year of R&D with Freedom Robotics

Brad Squicciarini and Zach Rash, co-founders of Coco Robotics, met at UCLA where they started the university's autonomous vehicles research lab. During these years, they spent a lot of time researching the self-driving industry, existing use cases, and opportunities to change existing experiences through robotics. They tested out a range of robotic ideas from delivery to golf carts to ride-sharing.

Once graduating with a degree in computer science, they settled on tackling the concept of the last-mile delivery service. With their own college experiences fresh on their mind, they knew that facilitating quick, cheap deliveries of essential grocery items would pique student's interest.

✓ COMPLETED DELIVERIES  
USING FREEDOM ROBOTICS  
TO REMOTELY PILOT ROBOTS  
WITHIN 48 HOURS

✓ DECREASED TRAINING TIME  
FOR OPERATORS THROUGH A  
STANDARDIZED INTERFACE

✓ SAVED THOUSANDS OF  
HOURS OF ENGINEERING  
AND MAINTENANCE TIME BY  
LEVERAGING THE FEATURES  
OF THE FREEDOM ROBOTICS  
PLATFORM



# IDENTIFYING YOUR CUSTOMER PROFILE & DIFFERENTIATOR

“Our first use case was testing our last-minute delivery robots with UCLA college students. We knew that students not only wanted an easy and cheap delivery option but wanted that accessibility at all hours of the night.”

Coco also created local fulfillment centers, designed specifically for their robots and managed by a network of operators. *“We can train non-robotics people to help maintain our fleets for us through Freedom’s interface, so that we can store our robots much more locally to our demand allowing for quick turn-around, no minimum order amount, and only a flat \$1 delivery fee — all things Postmates and DoorDash can’t promise. With this model, we’ve found that our return customers on average order three times a week!”*





# GETTING FROM IDEA TO PROTOTYPE IN DAYS

But getting a prototype to market in order to facilitate a delivery was more time-consuming than they expected. Brad and Zach dove into building the hardware and software for their robot and quickly realized the software that needed to remotely manage a robot was by no means easy to build.

Zach recalls, *"We needed a way to aggregate all the ROS information from each robot and publish it over the web for easy access to monitor and maintain.*

*Our developers were trying to make something like Freedom Robotics, but it just wasn't their domain of expertise and it was dramatically slowing us down."*

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**"WITH FREEDOM'S SOFTWARE AND WITHIN 48 HOURS OF RECEIVING OUR HARDWARE, WE WERE UP AND RUNNING WITH UNMANNED DELIVERY ROBOTS."**

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During a VC happy hour, Zach was introduced to the concept of Freedom Robotics and soon thereafter decided to partner with Freedom. *"Once we saw a demo of Freedom Robotics, we threw away all the code we wrote. With Freedom's software and within 48 hours of receiving our hardware, we were up and running with unmanned delivery robots. This is unheard of in our industry. Freedom accelerated our time-to-market dramatically and allowed us to ship our idea within days,"* recalls Zach.



# CRITICAL FEATURES FROM FREEDOM ROBOTICS

Coco shares Freedom's methodology — ship now and iterate. When launching a robot, striving for a completely humanless solution or a perfect experience out the gate has held up so many great ideas. Live testing provides feedback on product-market fit, value, and results in focusing on the right features and enhancements.

*"SaaS companies can launch quickly and iterate but robotics just hasn't been like that. Our philosophy at Coco is it's important for us to prove our ideas out early on — meaning launch it quickly and see what happens when you have a lot of robots around the city. We didn't want to sit in an R&D lab for a year tweaking hardware and software. This is where most robotics companies get stuck (usually to no fault of their own). ROS is awesome but not meant for production out of the box. But with Freedom's interface, we can maintain our fleet remotely and in one place allowing us to iterate and tweak things quickly as they come up.*

**“THE PLATFORM'S FEATURE COMPLETENESS AND ROBUSTNESS WOULD HAVE TAKEN US YEARS TO BUILD OUT [...]”**



*[...] and maintain and that's time not working on our product."*

When it comes to specific features and functionalities of Freedom, Coco has found that it allows them to articulate their vision, execution, and value to the end customer a lot better when speaking with investors. It allows them to bring the story to life. *"Specifically, I love the map view in Freedom and being able to easily drop a waypoint. Being able to demo this — especially to non-roboticists - and not having to go through something like RVIZ can really impress investors and enhance the conversation. I can drop a navigation goal and view it through a dashboard with the click of a button,"* shares Zach.



# MEETING DEMAND WHERE AND WHEN NEEDED

With the marrying of Rover Robotics' hardware and Freedom Robotics' software, Coco was able to expedite their launch by months in order to meet the sudden heightened demand for contactless delivery due to COVID-19. They saw an opportunity to encourage social distancing by reducing the number of trips people made to the grocery store.

*"Being able to meet this unexpected demand has been really exciting and fulfilling for us. The ability to remotely manage our robots and even involve the community in helping maintain the fleets has been awesome. We've been able to not only meet unanticipated delivery demand but also help our local robot operators to make an income that they may have otherwise lost the opportunity to make during the pandemic - and with no robotics experience needed!"*

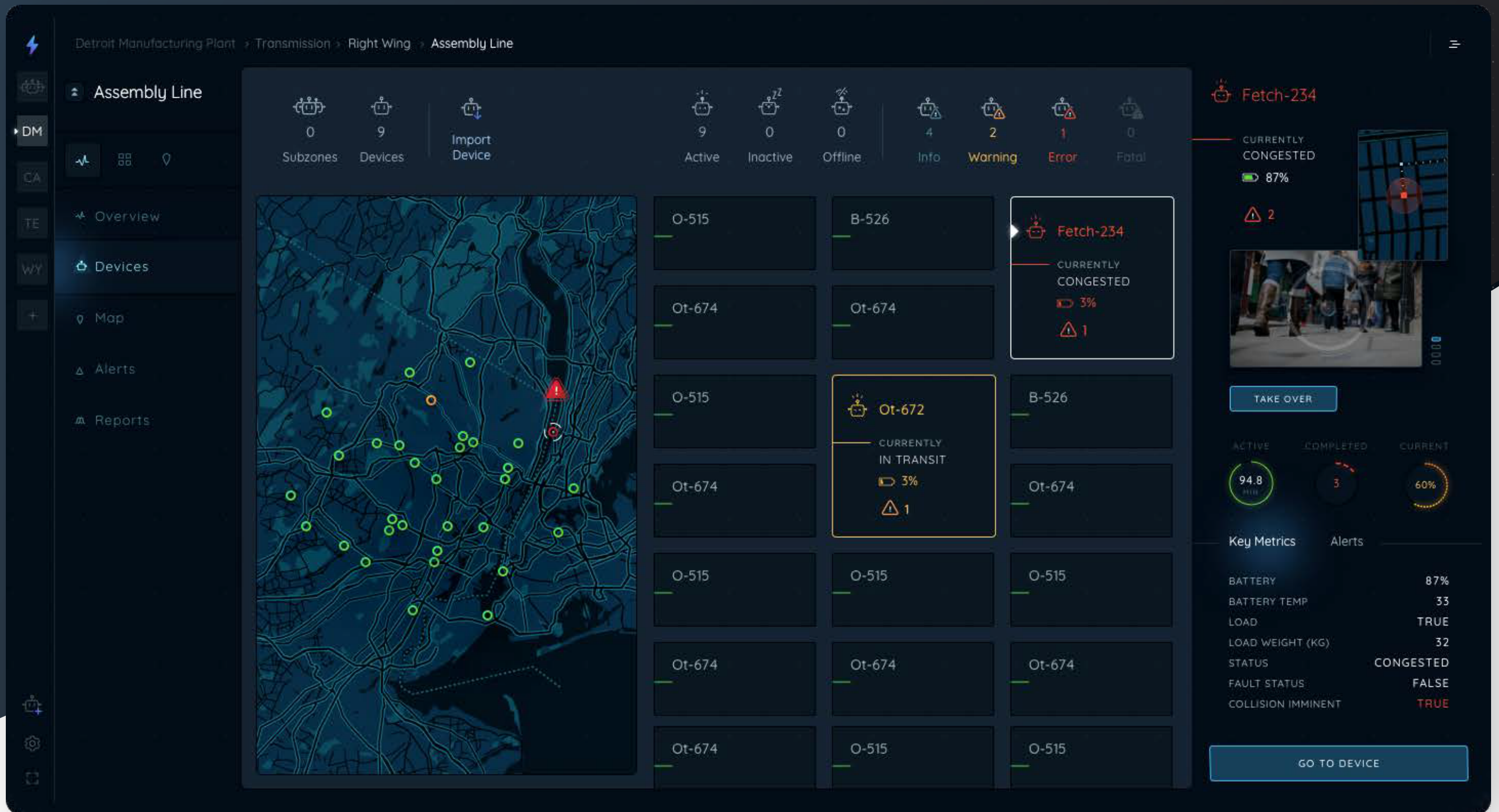
**WITH FREEDOM'S INTERFACE, WE WERE ABLE TO QUICKLY HIRE NON-TECHNICAL PEOPLE TO MAINTAIN AND SCALE OUR FLEETS AS DEMAND GREW.**



*Running this pilot at UCLA has proven to us that there is so much more demand we can meet and value we can offer through our delivery services. I'm really excited to see what our future looks like with Freedom at our fingertips."*



# NEXT STEPS



We want to hear from you.

Whether you are at the start of your robotic automation journey or years into a successful technology deployment, the Freedom Robotics team can help ensure you are positioned for success.

No obligations. No strings attached. No hidden surprises. We want only to help you make the most of your robotic automation investment.

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