

## Safety in a Small Package



*Alert devices provide a signaling, recording or other function with the press of a button. The problem? They're often bulky, industrial-looking, or so conspicuous and off-putting that the user never wears them, defeating their purpose before they're put into use.*

*Startup Revolar turned to Dynacast to help redesign its safety device, making it more discreet, functional – and attractive enough to wear.*

### A MAGIC BUTTON

In vulnerable situations, the difference between feeling powerless and being secure can come down to one question: how quickly could you signal someone for help if you needed it?

Most people carry smartphones with them outside the house. But using one to SOS in unexpected situations isn't exactly instantaneous.

Fumbling with a dial pad, calling an emergency number, and explaining the potential threat can add many adrenaline-filled moments—not to mention confusion about the person's precise location.

This complexity is what led Revolar co-founders Jacqueline Ros and Andrea Perdomo—both of whom have close relatives who survived traumatic personal danger—to come to a shared epiphany.

"If only they'd had a 'magic button' they could have pressed to let us know they needed help, they would have been able to avoid so much," says Perdomo. And the Revolar safety device was born.

Clipped onto keychains, backpacks or purses, one click sends an "all clear" check-in to chosen contacts, while additional clicks escalate the urgency, so contacts can help—or send first responders.

The pair bootstrapped their startup, funded it with a Kickstarter campaign, and landed outside funding, before getting coveted shelf space for their first-generation device in Brookstone, Target, Amazon, and BestBuy.

But months of testing revealed that consumers wanted a second-generation product with a smaller, more premium form factor that would fit right into their lifestyle. Consumers wanted the button to feel less like a device and more like an accessory.

### MANUFACTURING FASHION

To arrive at the ideal specs, Dynacast took Revolar through DFM (design for manufacturing) sessions covering process, material, and finishes.

The first requirement was simple: "This next-generation device needed a stronger

part,” says Dan Taylor of Dynacast. “It needed a feeling of higher quality, which a lot of our customers like—that heavier, metallic part in their hand—because it feels much stronger than plastic parts.”

Dynacast’s recommendation was zinc, which for die casting applications can be made thinner, more intricate, and more complex even at incredibly small sizes.

“I’ve always said technology is going to be fashionable. Adding the metal component was that first step. You can wear it and not be embarrassed to wear it because it’s so attractive,” says Perdomo.

More challenging was the finish because to meet their market’s criteria, Revolar needed to be strict with its cosmetics requirements—and to hit an even stricter launch deadline.

#### DESIGN DOWN TO THE WIRE

“We had a plating ‘recipe’ for the finish of this part, whether it was sandblasting it, bead blasting it, then adding different types of copper-nickel plating,” says Dynacast’s Taylor. But Revolar hadn’t yet confirmed the finish.

Then they visited Dynacast’s plant in

Batam, Indonesia, where they looked at some automotive key fob parts that were about the same size as Revolar’s design. Says Taylor, “They liked the components, which were beautiful and small, and the finish, which was a very shiny, satin chrome. They said, ‘That’s what we want.’”

It took time for tooling to begin, precisely because the design was evolving so significantly through testing and trials. Andrea Perdomo says, “We asked Dynacast to do some expediting of tooling production, and other manufacturers might not have accommodated that. We’re a really small startup. Dynacast made sure we could get to market on time.”

In the end, the philosophy of design freedom embraced by Dynacast was a major advantage; not only to accommodate tight timelines, but also the flexibility of finishes that Revolar wanted, to make a device its customers would be pleased to make a habit of wearing.

“Our product is beautiful, it’s functional, and it’s affordable,” says Perdomo. “And it’s largely because of the Dynacast experience.”



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ANDREA PERDOMO - REVOLAR

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