BERKSHIRE GREY
BUILDS TECHNOLOGY
TO WIN AT COMMERCE
NOW AND IN THE
FUTURE. OUR
MISSION IS TO HELP
CUSTOMERS SUCCEED.



By Tom Wagner, CEO of Berkshire Grey



## **COMPETING FOR** THE FUTURE OF COMMERCE

Put on your consumer hat and assess your habits. Do you buy both hard to find items and basic staples like batteries and toothbrushes online? When you go to a retail store, if they do not have the item you are looking for, do you leave and then look online or even look online while standing in the store? Will you place multiple online orders during a given day? Do you expect any goods ordered to arrive in two days (or less)? When you go to a retail store, are you sometimes surprised to find there is still value in seeing and touching the item before buying it? Have you tried the order online and pickup in store model (particularly in the hopes of having it 'now')?

For many of us, the answer to these questions is generally "yes."

This is a massive change. Over the last five years our shopping habits have transformed. Today we want what we want, exactly, we want it now (but are willing to wait a day), we price compare heavily, and we expect shipping to be free. Amazon is often the face of this change and while they have capitalized on it well, the changes in our expectations and habits are more general – a sign of the times – with Amazon as a catalyst.

Being a consumer today is pretty great. It feels like magic and is an immense luxury.

However, shipping is not really free – it just seems that way. Our new shopping habits put enormous pressure on retail, ecommerce, and logistics companies and these competitive pressures hit their supply chain operations hard. They are seeking transformation in how they move our goods around to retail operations or how they get them into boxes and to our doors (and struggle with the costs of doing so).

At Berkshire Grey, we are enabling our customers – some of the largest players in retail, ecommerce, and logistics to meet those consumer needs through intelligent automation – first-of-its-kind robotics and artificial intelligence. Today our deployed technology includes robot picking, sortation, machine perception, small robots working with large robots, among others. Our systems help our customers improve efficiency, raise quality, lower prices, and get goods to new places more rapidly.

## WHY SOLVE THIS PROBLEM?

Prior to Berkshire Grey, I had the privilege of serving as the CTO at iRobot. While there were many wonderful things about being in a publicly-traded market-leading technology company, one of the greatest, was having important impact with technology. The one that is most memorable is a family of robots that saved lives by protecting our soldiers from IEDs (improvised explosive devices). The feedback from generals, senior officials, and most importantly, our troops, was tremendous. The same robots were used in the aftermath of the Fukushima nuclear disaster – again to protect lives.

When I left iRobot in 2012, I set a goal to find another impactful way to use AI and robotics. I started with 45 ideas on a whiteboard then took a picture of them, erased them, and set them aside. I then set out to find the right problem to solve. I walked the floors of automotive manufacturing and supplier plants in Detroit. I walked fields in lowa and studied farm operations. While new robotics technology can support transformation in these industries, I saw less immediate pressure and appetite for change. Eventually I made my way into retail, ecommerce and logistics distribution and fulfillment centers and started studying their problems. In parallel, the tectonic shifts in retail were becoming clearer – our shopping habits were evolving, malls were closing, retailers were closing. One can use terms like market opportunity, timing, technology readiness, necessary investment profile, monetization models but the bottom line is that we had found the right place to build a company. If we do our job right, over time goods will be more available at lower costs. Short term, that has benefit for the companies competing in the space. Long term, it can raise quality of living.

## MAKING NOVEL TECHNOLOGY REAL FOR CUSTOMER VALUE

We started by recruiting experts in the quintessential abilities of robots seeing items in clutter (jumbles, piles, bins, totes - as needed in fulfillment operations) and robots picking things up from clutter. This led to what I consider our core early team (aka founding team). In our case, this team was large and had skills that aligned very well with our technical work. At least as importantly, the team had the grit to apply their skills, build systems in real settings, and to stick with it to see it through and are still doing so. Making technology that does something real is work, requires perseverance, and innovation. Over time our team was filled with great skills and great minds with backgrounds that included centers of excellence such as CMU, UPenn, Cornell, MIT, and leading companies like iRobot, Kiva / Amazon, Cognex, Uber, Microsoft, and so forth. Of course, the team continues to grow along the same lines today and we have stirred-in others on the commercial front with expertise in operations, finance, product management, customer support, sales, etc., who also demonstrate the grit necessary to create and build.

Together we have developed proprietary technology that is at that perfect balance of leading edge combined with significant commercial applicability today. Our systems are the only ones of their kind, able to pick goods of different sizes and shapes up from unstructured piles at high rates and with accuracy as part of a customer's workflow. Our systems combine and amplify this ability with smaller mobile robots of various forms which work with the larger to enable customer ROI and process.

If you're a technology person, one of the most gratifying experiences is to have tangible impact on the world with aggressive new technology. There are technical people and engineers who go their whole lives without building something somebody actually wants – innovations that won't see the light of day. We believe we've landed on something very special here – cutting edge technology for which our customers – the largest in their categories – are truly eager (and eager for help with their next ten problems too). We're focused on helping them play the new, disrupted game – and helping them win.

Tom Wagner, CEO









