

Invest in Perrone Robotics

Self-driving kits for vehicles used in local transit of people and things



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[REVIEWS](#)

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Why you may want to invest in us...

- 1 \$17M+ sales history, \$7T+ market
- 2 Current customers w/1K+ units oppty
- 3 36K+ miles, 30+ vehicles, 5 patents
- 4 CEO autonomy pioneer, DARPA Grand Challenge, SAE autonomy
- 5 Intel Capital Series A, \$29M+ value (2016)

Why investors ❤️ us

WE'VE RAISED \$3,072,513 SINCE OUR FOUNDING



Perrone Robotics has superior technology in the autonomous vehicle space. Its software is so efficient that it can operate on a Raspberry Pi. The cost of deployment of autonomy is dependent upon the cost of lidar, radar and vision system sensors. Perrone Robotics' patented technology allows for efficient adaptability to these sensors as their costs continue to plummet. This capital raise will allow the company to expand on its current successful deployments in the public transportation space to new markets.

Nolan Bushnell

LEAD INVESTOR

INVESTING \$25,000 THIS ROUND



Paul is one of the most innovative founders I've known. He's a leader and an executive, but also has that rare combination of technical expertise and innovation. I know this will be a successful investment.

Tom Hubbard ★

Our team



Paul Perrone
Founder/CEO



17+ year autonomous vehicle industry pioneer (DARPA Challenges, patents, MAX software inventor, AV projects lead). 25+ years hi-tech experience. Breadth of skill in tech, financial, sales, & legal aspects of business.



Nolan Bushnell

Board Member

Technology pioneer, entrepreneur and engineer. Father of the video game industry (founded Atari Corporation and Chuck E. Cheese's Pizza Time Theater). Founder of numerous companies over last 4 decades.



In the news



Downloads

[PerroneRobotics-RegCF-Overview-112520-compressed.pdf](#)

Deployable fleets of autonomous vehicles today.

Autonomous vehicles are creating some of the largest market opportunities in our lifetime. However, building and deploying autonomous vehicles is a complex undertaking. TONY (TO Navigate You), our proven to work and flexible autonomous retrofit kit for any vehicle, makes deploying autonomy in useful revenue generating applications possible now. We have an active large Army base pilot, downtown business application pilot with America's largest city by area, and a Fortune 100 logistics company distribution center application all using our TONY kit in retrofitted commercial vehicles. These deployments and a large sales pipeline all provide massive opportunities for scale.



One of the largest market opportunity in our lifetime.

Autonomous vehicles represent a massive market opportunity and revolutionary approach to transportation every bit as groundbreaking as the birth of the automobile itself, powered flight, and the personal computer. Perrone Robotics is tackling a trillion-dollar market where we can deploy autonomous vehicles in revenue generating applications now such as fixed boundary residential, work site, and downtown business routes. With a target of over \$300M in revenue by 2024, and potentially \$1B or more, we are well positioned for growth and also as an M&A target where comparative acquisitions have exceeded \$300M+. (These projections cannot be guaranteed)

**“Driverless Cars Will Be Part of a \$7 Trillion Market by 2050”
– Intel Corp.**

AUTONOMY M&A EXAMPLES 2016-2020





Extensively proven and complete autonomous software and retrofit kit.

Building and deploying autonomous vehicles is a complex undertaking that demands significant time for careful design, adaptability for an evolving hardware market, and a complete solution versus one that is only partially ready. We've built, over the course of 17+ years, a modular and flexible hardware independent software platform called MAX (Mobile Autonomous 'X') that enables us to deploy comprehensive and complete autonomous vehicles. MAX has been patented and proven to work traversing over 36,000 miles across 30+ different vehicles in projects with automotive manufacturers, automotive suppliers, and industrial equipment manufacturers. We've perfected MAX, combined it with commercial hardware that can be used to rapidly outfit any vehicle, and created a total software application solution embodied in our TONY retrofit kit product.



Validating our business model and delivering on full autonomy in road worthy commercial vehicles.

Our TONY product allows us to field fully autonomous vehicles for revenue generating operation today in places with fixed boundaries such as residential areas, work sites, and downtown business routes. TONY is currently fielded in neighborhood electric vehicles at the Fort Carson Army base in Colorado, in an all electric transit van with the Jacksonville Transportation Authority (JTA), and in yard trucks for hitching and unhitching from trailers in distribution centers with a Fortune 100 logistics company. Between a more extensive rollout across Fort Carson and other U.S. DoD bases, follow on bids for 40+ vehicles with the JTA, other transit agencies replicating what JTA rolls out, and deployments of multiple vehicles across multiple distribution centers with our Fortune 100 customer, we are well positioned to exploit the opportunities immediately before us. Furthermore, our sales pipeline has generated over \$165M in raw opportunity with an estimated weight of over \$14M that can be captured. Our capital fund raising plans will help us tap into and grow our sales pipeline in 2021, and to realize over \$320M by 2024, with over \$1B possible. *(These projections cannot be guaranteed)*



Ready for driverless production operations in 2021.

Our competitors fielding autonomous shuttles in fixed boundary applications lack the

speeds and level of autonomy that our technology, developed over 17+ years, brings to our customers. Customers, partners, and industry experts who've ridden in our vehicles have provided us with validation of our competitive advantages. What's more, our production ready solution is capable of running on production grade compute platforms drawing low energy versus more early stage and research oriented approaches, and is the only solution in industry with a patented approach for verifying the safety of operations. These factors drive our ability to go driverless in a production capacity in 2021.



Autonomy pioneers, experts, investors, and a tech industry icon.

Our Founder & CEO, Paul Perrone, has been a pioneer in the autonomy space for over 17 years with achievements that include leading a team in the historic 2005 DARPA Grand Challenge, being the founding chairman of the SAE committee which set the standards for the autonomy industry, and inventing and patenting the first general purpose robotics operating system for AVs in 2006. The Company has cultivated a core team of A players with diverse and complementary skills in autonomy, embedded systems, and automotive applications. Our board members include Nolan Bushnell, founder of Atari and many other ventures for the past four decades, and board observer Mark Lydon from Intel Capital, who led our Series A round of investment.



A Company well positioned for massive ROI.

We have active customers with deployments to scale, a massive sales pipeline, a proven technology, and an enormous trillion dollar market in which we're operating. Our aim is to crowdfund a raise to seize on these immediate opportunities this year, close a follow on investment round early next year, and to parlay this into a substantial growth in sales. We aim to do this by lowering our cost of goods sold, ramping up our sales and marketing efforts, and increasing our overall headcount. With our core team, technology infrastructure, and customer projects already well established, this investment will put us in a position for massive growth and a high valuation in an industry with revolutionary growth potential and large acquisition exits. *(This cannot be guaranteed)*



Investor Q&A

What does your company do? ▾

➔ EXPAND ALL

Provide kit to make vehicles drive themselves in bounded zones to transport people and

things - today.

Where will your company be in 5 years? ▾

We want to be the go-to company for technology to enable autonomous shuttles and goods transit. We also want to achieve \$1B+ in revenue by 2024. As we're in a highly coveted space with extraordinary revenue potential, M&A demand that will come our way should also bring significant ROI opportunities. These projections cannot be guaranteed.

Why did you choose this idea? ▾

To increase the safety, lower the cost, and provide more productivity associated with the transit of people & things.

How far along are you? What's your biggest obstacle? ▾

With over 250 person-years invested, over 36,000 autonomous miles traveled, and over 30 different vehicle models outfitted, we have a proven fully autonomous technology platform. Furthermore, we have a core customer base all with scalable unit opportunity, and a large pipeline of interest. Our biggest obstacle right now is acquiring the capital we need to take advantage of this opportunity, reduce cost barriers to further sale, and increase our sales and marketing footprint for massive growth.

Who competes with you? What do you understand that they don't? ▾

Companies making automotive box-shaped shuttles such as Navya and Easymile create custom built and slow traveling vehicles. Such vehicles are not scalable for production use, whereas our "drop-in any vehicle" approach allows us to retrofit the right road-worthy vehicle for the job. Customers desire the safe and federal safety approved vehicles we support. Furthermore, the level of autonomy we bring to our vehicles far exceeds what our competitors are offering. "Seeing is believing" and our wins this past year with customers experiencing our technology prove to them the high level of autonomy we have over our competitors in the space. Finally, we have a unique and certifiable approach to autonomous vehicle safety (patented).

How will you make money? ▾

Our revenue will predominantly derive from licensing our software combined with recurring revenue from updates and support. This comes from OEM integration and partner integration of our technology into vehicles as we scale. We've begun formally establishing these partnerships. We have to prove ourselves with such OEMs and partners first, and thus we achieve this by outfitting, certifying, and piloting any first few vehicles newly encountered using Company personnel.

What are the biggest risks? If you fail, what would be the reason? What has to go right for you to succeed? ▾

One significant risk is not raising the right level of capital in time to address the opportunity before us and to maintain and further our advantage over competitors. Another risk is that of unfavorable PR that can come from incidents. We mitigate this by way of operation in bounded and managed vs open and expansive environments combined with a rigorous test methodology backed by our patented safety verification approach. Furthermore, we serve as AV technology providers vs operators. Our partners or customers are trained by us to operate the vehicles and maintain the insurance levels and liability protections associated with day to day operations.

How big is the market and space? ▾

The autonomous vehicle market size is frequently couched in terms of trillions of dollars. This is unsurprising as there are over 1.4 billion motor vehicles in the world and an average vehicle cost of \$35,000 or more. For autonomous vehicle applications operating within defined zone boundaries, we look at 1) residential and work campuses (e.g. communities, military bases, universities), 2) logistics and work sites (e.g. distribution centers, airports), 3) downtown business districts (e.g. downtown circulator routes, main street USA), and 4) recreational and commerce location (e.g. hotels, resorts, amusement parks, shopping centers). Totalling these locations, in the U.S. alone by 2024, there are over 380,000 relevant mobility centers. With approximately 22% of such locations being centers with bounded zones warranting our type of autonomous application, that provides an available market of over 85,000 locations. Our capture of just 1.1% of that market by 2024 yields over 950 locations serviceable by our technology. An average of 10 deployable units per location will yield over 9,500 TONY-equipped vehicles by 2024. Between technology and kit licensing (44% of sales), provisioning of turn-key shuttles (27% of sales), and support and services (29% of sales) we project (but not guarantee) over \$323M in sales by 2024, and with the "flywheel effect" of contagious sales, over \$1B possible.

What is the most likely exit and return on investment (ROI) scenario? ▾

Given the size of market opportunity, automotive manufacturers and suppliers alike have been hungry and spending an extraordinary amount of money in the race to bring autonomy to their products. What's more, a large number of startups in the space have emerged to offer various components of the overall solution. Larger companies have invested in and acquired smaller companies where dollar figures in the amount of \$250M to \$1B or more are the norm. Acquisition examples include nuTonomy (\$450M), Optis (\$300M), and ZOOX (\$1.2B). With our Company's patents, software, pioneering expertise, customers, and pipeline; with investment to further increase our headcount, grow our customer success stories, and market these stories and our capabilities, we believe we are tracking toward being a high valued acquisition target. In parallel, our pursuit of sales and path to further public offerings further drives our future return on investment opportunity.

What is the follow on opportunity with your current customers? ▾

We have three engagements in particular right now which all provide significant downstream opportunity for the Company. We have autonomous shuttles operating on a daily basis at the Fort Carson Army base in Colorado for the transit of base personnel. Our partner First Transit is trained by us in the operation and maintenance of these vehicles offering scale not only for Fort Carson but, as the program is designed, for military bases across the US DoD network. We also have delivered the world's first fully autonomous all electric, ADA-compliant, and federal safety standards compliant transit van to the Jacksonville Transportation Authority (JTA) in Florida. Beyond the potential roll out opportunity with JTA, as JTA is leading the world in the most comprehensive plan for public autonomous transit, and as our solution checks the requisite boxes for transit authorities across the U.S. and beyond, we anticipate a dramatic increase in demand as our deployment enters operation. Finally, we are also working with a Fortune 100 logistics company automating yard trucks which autonomously hitch and unhitch from semi-trailers to relocate them within distribution centers. Our plans for driverless operation in production with this customer is planned for 2021. As each of these deployments continue operations and awareness is generated, we anticipate a significant increase in inbound requests for similar deployments from other customers.

What are your sales friction points? ▾

Some of our competitors, past and present, have scorched the Earth before us with potential customers by way of their sub-par autonomous solutions. The common complaint we've heard are vehicles that can only operate at slow speeds (e.g. 10-15 mph), require frequent manual intervention, and are hosted on custom-built prototype vehicle platforms without federal safety standards compliance or road-worthiness. Thus, when we encounter customers, our barrier to overcome deep rooted skepticism can be high. Another friction point is the current cost of sensors and some electric vehicle configurations desired in the transit space. Finally, being vehicle independent, when a customer desires or needs a specific vehicle platform into which we have yet to install our kit, we have to go through a process of one time tuning and certification. The cost of this certification is something, without funding, we currently have to pass on to customers. Thus, autonomy skepticism, sensor cost, vehicle cost, and first unit certification costs currently represent our biggest sales friction points.

How will investment help overcome friction points? ▾

While we continually address and mitigate the aforementioned friction points, as we seek to raise funds from this Wefunder round and bridge to a larger Regulation A round, we aim to definitively overcome all sales friction points and open the throttle for massive sales growth. To overcome autonomy skepticism, seeing is believing, and we intend to outfit a number of company vehicles for demonstration with customers and at conferences. When customers ride in our vehicles, the barriers associated with autonomy skepticism melt away and the pathway to sale is accelerated. Furthermore, we intend to invest a modest amount of funds for certifying lower cost sensor configurations for use in our vehicles. We also plan to tune and certify our entire kit for operation in a portfolio of vehicle targets that represent common asks of the customers in our target application domains. Finally, when piloting or fielding new turnkey vehicle solutions for customers, funding will better enable us to purchase and lease vehicles for use in customer applications, thus lowering our costs passed forward.
