dorigo™ » electronics manufacturing services

Disrupting Fleet Management with Made-in-Canada IoT Innovation from NaviLink

EMS EXCELLENCE 25 Years 1988 to 2013

"The nature of our product is to be safety critical, so we needed to work with a local EMS supplier where we could oversee product builds and ensure our controller was designed the way it was specified."

***Ron Iacobelli** - COO, STTI*

Connected technology from Internet of Things (IoT) innovations has brought greater efficiencies and improvements to fleet management. Automated fleet management connects vehicles and monitors driver activities, giving fleet managers an unprecedented level of insight into fleet performance and driver behaviour. As new laws in North America are now requiring fleets to electronically log their hours of service to remain in compliance, this level of automation and connectivity has become essential.

Knowing where fleet vehicles and drivers are at all times identifies potential problems sooner and mitigates risks before they become larger issues that can impact driver safety or increase operating costs. This is what Spur Innovations envisioned when they developed NaviLink, a transportation logistics solution, which is disrupting today's fleet management.

Spur Innovations was launched in 2013 as a self-funded, start-up company which had an idea for developing active controls for connected cars. The company chose Dorigo Systems as its Electronics Manufacturing Services (EMS) partner to create its first prototype as Dorigo was willing to invest time and manufacturing support to bring NaviLink to market at the idea stage. Together, they designed and manufactured the controller used in their vehicle control system which was acquired by Streamline Transportation Technologies Inc. (STTI) in December, 2016.

Our mission is to manufacture the highest quality electronics

"Our mission is to manufacture the highest quality electronics using our fast turnaround and dedicated service capabilities to cost-effectively take our customer's product from prototype to full production," states Paul Vasvary, Business Development Manager, Dorigo Systems. "We were able to provide DFM suggestions after the prototypes so that their controller could be seamlessly launched into production."

Boosting Efficiency with the Autonomous Vehicle

Through the use of vehicle automation and artificial intelligence, NaviLink tracks and monitors fleet vehicles using standards and rules established by the Fleet Administrator. The NaviLink Controller is a gateway for administrators as it provides the capability to host, provide connectivity and support wireless RF technology to control sensors around a truck or fleet vehicle.

The NaviLink Gateway combines telematics with vehicle automation technologies to make vehicles safer, cleaner and more productive. The technology adds perception, communication and intelligence to any vehicle.

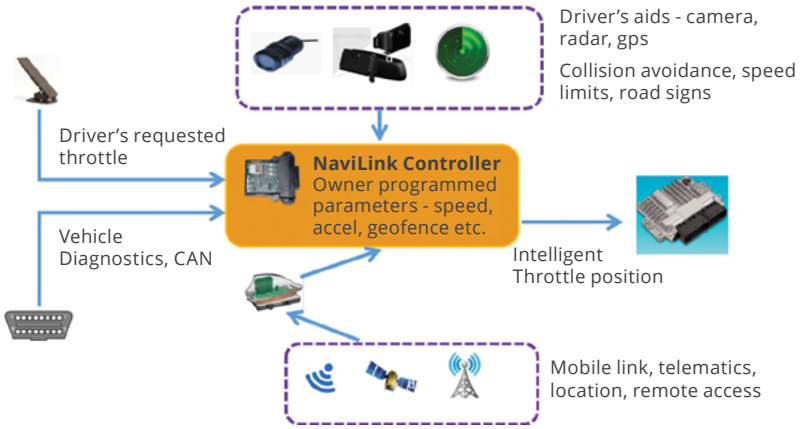
Dorigo Systems Ltd.
3885 Henning Drive, Burnaby, BC V5C 6N5 Canada
604-294-4600 • sales@dorigo.com
Follow us on **LinkedIn** and **Twitter @DorigoSystems**

www.dorigo.com

NaviLink also monitors driver behavior — idling, acceleration and cornering — to ensure that vehicles are being driven as safely and efficiently as possible while optimizing fuel consumption. In addition, this controller tracks total time spent on job sites and deliveries by referencing Global Positioning System (GPS) data from vehicles. Tracking vehicles in real-time throughout the day helps Fleet Managers quickly make better informed decisions when operational adjustments are necessary – giving greater control over costs and budgets.

"The nature of our product is to be safety critical," says Ron Iacobelli, COO, STTI, "so we needed to work with a local EMS supplier where we could oversee product builds and ensure our controller was designed the way it was specified." STTI works with Dorigo Systems, one of the Pacific Northwest's leading EMS providers, due to the company's high quality standards, its solid reputation and for being well connected with components suppliers.

navistream

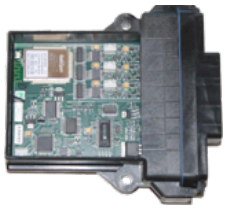


How NaviLink Works

A Made-in-Canada IoT Solution

The NaviLink design team wanted to deliver a Canadian product sourced through local manufacturing channels. In their opinion, the ability to oversee production locally, and to evolve prototype builds quickly, was critical to successfully bringing NaviLink to market.

"We viewed Dorigo Systems as a good fit right from the start," remarks Iacobelli, "They were able to ramp up production while maintaining high levels of quality to commercialize our product. The team at Dorigo was there at every step of the way ensuring our controller was manufactured in Canada from bare boards to populating components. In fact, we were able to source boards through their sister company, Enigma Interconnect, streamlining production and staying local."



The NaviLink gateway controller designed and manufactured in partnership with Dorigo Systems.

When Spur Innovations merged with STTI in December 2016, they continued to use Dorigo's turnkey services for their core components and leverage Dorigo's vast network of component suppliers to bring in the best pricing options for NaviLink.

"We don't just assemble circuit boards – we become partners in the production process," says Ken Pauls, Business Operations Manager, Dorigo Systems, "Our team handles everything from procuring components, handling metalwork and final assembly to testing, labeling and shipping of the end product to customers. In STTI's case, they have benefitted from our highly leveraged purchasing power to reduce component costs."

Today, STTI provides complete connectivity for Fleet Management by providing the data and visibility to manage not only routes, deliveries and services calls, but also insight into the safety and reliability of fleet drivers. Their comprehensive transportation logistics solution is securely delivered by the Canadian designed and manufactured NaviLink controller.

"It's not often that you can find a manufacturing partner that delivers both a high level of control and quality in their services," says Iacobelli, "We always trust Dorigo Systems to build what we've designed and specified. It's an ongoing relationship that makes us agile in delivering our NaviLink solution to market quickly and effectively."

Dorigo Systems Ltd.
3885 Henning Drive, Burnaby, BC V5C 6N5 Canada
604-294-4600 • sales@dorigo.com
Follow us on **LinkedIn** and **Twitter @DorigoSystems**

www.dorigo.com