

USPTO INVALIDATES PATENT IN HIGH-PROFILE AUTONOMOUS VEHICLE TECHNOLOGY CASE

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In early 2018, two heavyweights in the autonomous vehicles market settled a patent infringement lawsuit in which Uber paid Waymo nearly a quarter of a billion dollars. Despite the abundant resources that Uber put behind its ultimately unsuccessful attempt to invalidate the primary Waymo patent, an independent engineer recently managed to invalidate it for only \$6,000.

The dispute involved Waymo's U.S. Patent no. 9,368,936 covering a laser diode system for LIDAR. LIDAR is similar to radar, but operates with laser light, and is used in many autonomous vehicle systems. LIDAR sensors map objects in 3-D, aiding autonomous cars in the ability to maneuver around pedestrians and other vehicles. The '936 patent provides a circuit for a LIDAR device that allows it to be controlled by a single transistor.

Waymo, a "self-driving technology company," is a subsidiary of Alphabet, Google's parent company. Since December 2016, Waymo and Uber had been at odds over the technology taught in the '936 patent, culminating in Google's suing Uber for infringement. To resolve the case, Uber eventually agreed to redesign its LIDAR technology and transfer to Waymo 0.34 % of Uber stock. Uber, valued at \$72 billion at the time, issued Waymo roughly \$245 million in equity. The settlement included an agreement preventing Uber from incorporating any of Waymo's confidential information into Uber technology.

The controversy between Waymo and Uber began when a Waymo employee allegedly transferred thousands of confidential work documents to personal storage disks, and then resigned from Waymo to begin working at Uber. Waymo was alerted to the possibility that the ex-employee might divulge trade secrets and confidential information to Uber when a Waymo engineer was inadvertently copied on an email from Uber to one of its suppliers. The email showed a circuit design that looked nearly identical to Waymo's '936 patent.

Following the discovery, Waymo sued Uber for patent infringement of the '936 patent and misappropriating trade secrets. Along with a hefty monetary settlement, Uber agreed to redesign its LIDAR system ("Fuji") in order to not infringe the '936 patent.

After Waymo and Uber settled their case, Eric Swildens, an engineer unconnected to Uber or any other self-driving developer, thought it was likely that the LIDAR circuit that was the subject of the '936 patent existed prior to the filing of the '936 patent. In researching the technology, Swildens uncovered multiple patents and books that appeared to disclose the circuit prior to the filing of the '936 patent. Swildens filed a request with the USPTO to invalidate Waymo's patent. In September 2018, despite a zealous defense by Waymo, the USPTO invalidated 53 of 56 claims of the patent.

Although Waymo is expected to appeal the decision, it is a significant blow to its image, especially after having asserted in the Uber lawsuit that it developed its patented inventions at great expense and through years of extensive research and experimentation. This case demonstrates that even a valuable patent, defended by a company with extraordinary resources, can be invalidated by a small, independent party.

The intense scrutiny that lawsuits bring to a patent can lead to the discovery of prior art that can invalidate the patent. Had Waymo and Uber reached a licensing agreement of the circuit technology with confidential terms and without filing suit, the case may not have been so widely publicized, and the patent might still be valid. Assuming the USPTO's decision stands, the technology of the '936 patent is now available for all of the industry to use. Patentees should be aware of the risks of enforcing their patents and fully consider all options before litigating.¹

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ADDITIONAL INFORMATION

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