

Lawrence “Red” Whittaker, Class of 1966

Distinguished Alumni

Red is the father of field robotics. His robots are thinking machines that mine, farm, drive, build and explore. They are agents of productivity and change. They develop, secure and feed the world. They explore worlds beyond. Red conceived these robots in an era when the technologies and fulfillment were beyond imagination. The technologies, applications and impacts have since come to pass. The movement is thriving, and its impacts are worldwide.

Red developed the first autonomous driving, nuclear cleanup robots, self-guided tractors, automated mining and technologies for space robotics. There was never a second chance to create any of this the first time. These breakthroughs transformed belief. Although primeval by today's standards, each established a new discipline, had world impact, and seeded future enterprise. An unbroken stream of inventions, implementations, applications and impacts followed and continue to this day. Red has developed robots for land, sea, air, underwater and underground. He is now developing a spacecraft, robotic lander and rover to explore for ice at the pole of the moon.

Red founded the Field Robotics Center, the National Robotics Consortium, spawned generations of people, and spun out many companies. Red won the driverless car race that catapulted sensing and intelligence into the automotive industry. This is already preventing accidents in everyday cars. The movement is changing the future of transportation. It is igniting an industry that is projected to exceed three trillion dollars.

Red's awards include the Simon Ramo Medal, Feigenbaum Prize, Columbia Medal, Newell Award for Research Excellence, Engelberger Award, Metcalf Award, and the Heinz Medal of Science & Innovation. He is a member of the National Academy of Engineering.

Red graduated in the Hollidaysburg class of '66. His undergraduate alma mater was Princeton. He served in the US Marine Corps. He earned his PhD degree at Carnegie Mellon University. Red is currently a professor at Carnegie Mellon's Robotics Institute. He chairs Astrobotic, Inc.

Red resides in Pittsburgh with his wife Kathy. He raises cattle in Somerset County.