Mike Passaretti

Mike has been working in robotics for the past fourteen years. He’s worked in multiple industries on projects that have taken him all over the world. He’s an avid hobbyist and spends his spare time pursuing his passions in rocketry, building and constantly exploring new subjects. Mike has aspired to learn and build since he was very young. His parents encouraged him to ask questions, experiment, explore, draw his ideas, learn new subjects, and use tools safely. He was given a lot of freedom to try new things, to fail and to succeed. They didn’t get too upset when he left nails on the driveway for their cars to run over or his father's tools to rust in the rain. They didn’t even get too upset as incessantly took things apart and hid the evidence under his bed.

As a young student, he spent most of his time in class thinking about what he’d build after school. He didn’t enjoy being a student until he was able to take courses like chemistry, physics and trigonometry in high school. He excelled because paying attention meant learning the basic principles that would help him build bigger projects and break down complicated problems. As a freshman and before the high school curriculum permitted him taking chemistry and physics, he wandered curiously into the science labs before school started. It was there he befriended a teacher who would answer his questions about chemical reactions and physics equations. Little did the teacher know this insight helped him make homemade rocket fuel and accurately aim his potato cannons at his friends’ houses.

He was the only kid in his freshmen technology class to successfully complete the first assignment. What initially was a daunting challenge to build mechanical device, took shape through the persistence of trial and error in his parents basement. No other student came close to completing the project, which to his classmates and teachers disbelief he turned in well before the deadline. He became known to finish each assignment confidently and as a reward was given free time to work on his own projects.

The chemistry teacher he befriended that year, asked him to help the annual statewide physics competition which was for juniors and seniors. While he wasn’t allowed to attend the competition, his contributions helped the upperclassmen win each year until he was finally old enough to compete and accept trophies for the events he won.

As Mike was preparing to pick which university to attend and starting to explore his interest in electronics, his cousin was finishing a biochemical engineering degree at Rutgers. One day, his cousin took him on a tour of the campus. It was the morning before his own hard earned graduation and he showed him what it was like to be in college. He explained engineering wasn’t an easy path but encouraged him he could do it. This simple act cemented Mike’s inevitable plans to become an engineer. He spent most of his junior year of high school pursuing his new passion in computers, electronics and robotics.

By his senior year of high school he taught himself how to program in three different languages and to use the computer he saved up to buy to control his robots using software he'd written. He went on to study computer science and electrical engineering at NJIT. He struggled his first two years and considered quitting. But, just like high school he prevailed when the gap between what he was learning and using it to solve meaningful problems became evident.

After completing his bachelor's degree, he began his career as an electrical controls engineer for a small robotics company in NYC. His first projects were developing technology for the defense and aerospace industries. In the first five years of his career, he worked on four space projects including two NASA Mars missions. Mike is very proud of his contributions to the Phoenix Lander and the Curiosity Rover missions; that he can point to pictures in science books of his work; that he can say a part of him is and forever will be on another planet. In addition to working on aerospace projects, Mike also worked in the Australian iron mines. He lived in Australia for a year where he helped build a laser spectroscopy system to measure the quality of iron ore. In his spare time in Australia, he continued to pursue his rocketry goals and made friends that he still travels to see today. It was these same friends that helped Mike launch a rocket to over 55,000 feet in the northern Nevada desert and again just last year to over 90,000 feet.

Five years ago, Mike left the aerospace industry to focus on pipeline robotics and commercializing technology at ULC Robotics. ULC is an innovation contractor who performs research and development and provides robotics as a service to the utility and energy industries. At ULC, he assembled a team of twelve incredibly talented engineers and scientists, who developed new pipeline robots for inspecting and repairing live gas pipes. Over the past three years, he has been building an unmanned aircraft manufacturing and services business - ULC Aerial Services. Mike's team builds aircraft technology and support equipment to operate UAV's a.k.a drones in the US and soon, the UK.