Upon first joining my school’s VEX robotics team a few years ago, I immediately saw how the program could live up to its mission of preparing students to enter the underappreciated STEM fields. Those abstract math equations soon became gear ratios and the previously inapplicable laws of physics found their place in reality; VEX had me well on the way to falling in love with engineering and all of its intricacies.

Even so, at some point I came to realize that VEX possesses a truly multidimensional nature, one that is often lost in the shuffle. It’s not just a group of people putting together prefabricated pieces of plastic to hopefully create a functioning robot. It’s an engineer drawing up the design. It’s a mathematician calculating the possibilities within that design. It’s a programmer taking the time to account for every possibility and every functionality that might be needed. It’s a writer and an artist logging every debate, every nut and bolt that is put on the robot.

And, perhaps most important of all, it’s a leader and a communicator who makes the entire process run smoothly, mediating arguments and making tough decisions along the way. VEX is a collaborative effort; no one person can put together a world championship robot. As the world gradually works toward using collaboration as a key tool towards progress – evidenced by the massive success of initiatives like Wikipedia and Linux – VEX is leading its participants to think and act in ways that will lead to the next great collaborative initiative.

Above all, VEX is not for the one-dimensional “nerds” many seem to take it for; far from it. VEX is for those ready to take their diverse set of skills and use them to make a difference in this rapidly progressing world.