



Mr. Karns 2023 Woodie Flowers Award Essay

Since founding the WorBots, Team 4145 in 2012, Mr. Karns has put the “sport” in “sport for the mind.” Prior to starting the team, Mr. Karns served as a football coach for 33 years; now, he is driving home STEM education from the classroom to the end zone by means of *FIRST*. When he started the WorBots, Mr. Karns was a PLTW teacher at Worthington Kilbourne High School. Mr. Karns wanted to give his ~20 interested students an opportunity to apply what they learned outside of the classroom. Today, while retired from teaching Mr. Karns remains engaged as our lead mentor, spending over 35 hours each week during the build season to ensure students have educational opportunities through *FIRST*.

During the preseason, Mr. Karns encourages leads to pass the ball to new members through our rookie program. He collaborates with our mentors and subteam leads to guide rookies through a crash course on building rookie robots; allowing the students to expand their STEM knowledge and prepare them for the season. This training doesn’t stop with technical skills. Mr. Karns teaches prospective WorBots about the Core Values of *FIRST* — describing the importance of Gracious Professionalism through his now famous stories.

At our kickoff event, Mr. Karns has us break into design subteams to develop potential ideas for the robot. From there, he encourages students — whether it's your first or fourth season — to present their ideas including tradeoffs. He is not afraid to pull out the whiteboard to outline strategy or to compare differences in designs. This approach acclimates our new members, while helping them to develop communication skills and confidence that can be applied to the real world. Once a strong design is selected, he guides our fabrication team through the build of our robot. He encourages the team to leverage a modular design to build the robot in an agile fashion. He emphasizes time management so that the robot can be passed to the programming team in a timely manner. Concurrently, he supports our fabrication rookies as they build an off-season robot — ensuring that no students are left on the bench. Rather than giving students answers, he asks questions and pushes them to think through their own approaches — causing consistent team growth.

For Mr. Karns, it is much more than just one team or robot. Within the *FIRST* community, he is never afraid to share our playbook, programming team, or spare parts to help other teams succeed. He is active among Central Ohio mentors and teams, including his involvement with the CORI Invitational, which we seasonally host at our school. For students, Mr. Karns serves as a role model, with many citing him as an inspiration for pursuing careers in science and technology. He frequently talks to the team about their academic aspirations after high school and writes recommendation letters for team members. Mr. Karns doesn’t fumble the opportunity to inspire us and create a lasting impact on both the Worthington and *FIRST* communities.