

AUTOMOTIVE WOODWORKING **FABRICATING & WELDING**

SMALL ENGINE

FAITH-BASED MENTORSHIP HANDS-ON

COMPUTER DESIGN 1/27/2021

"My association with Walking Tall started a few years ago with an introduction from a longtime friend and supporter of Walking Tall, Reggie Jones. When meeting Tom and Judy, I could immediately see their passion and commitment to serving young men and the great example they set as a couple. And the Walking Tall's mentors are exceptional.

The people that our community's young men associate with and learn from really shape the type of person they will become. Associating with the right people keeps Walking Tall young men on the right track to grow, develop and contribute.

It has been gratifying for me to work on creative projects with Walking Tall and witness young men flourishing in the positive surroundings while turning out high-quality work.



Every week, I have opportunities to tell someone about Walking Tall. It has enriched my life as well, and it's great to believe in an organization so much that I can always confidently and enthusiastically recommend it!" ~ Barry Robino

Daniel Willhite is currently going to college to be an engineer, he learned skills on a new project while at Walking Tall. He explored how to program our CNC (computer numerical control) router, while others acquired woodworking skills, identified strategies to execute and improve the project, and had fun testing the finished project.

Here is how Daniel describes his experience:

"Helping model and machine the Golf Stiks was one of the more exciting and all-encompassing projects I took on while at Walking Tall. The project started as a single prototype, and we had to take a physical item and find a way to model it to its current and almost exact dimensions. The Golf Stik was guite the challenge because I had never modeled such an organic shape that needed to be dimensionally accurate. After a few failed attempts of modeling, we decided to take a photo of the rails and trace them in our modeling software strictly by measuring. The next major issue we encountered was how to run the cut files on the CNC router we had. Initially, the software we were using we had to take a 3D model that was dimensionally accurate, convert it to a JPG file, to an SVG file, and then into the router program to create the tool paths. We found quickly that this caused us to lose our dimensional accuracy. Initially, we thought that the issues we were having were due to the stepper motors on the CNC Router were not getting enough voltage and unable to keep up with the machine's forces. Ultimately, it was the software that was causing our issues. The most challenging aspect of the whole project was learning how to use the software we use for our HAAS T2 CNC mill and find a way to take that level of precision in coding and transfer it to our CNC wood router. After many hours of scratching my head, reading forums, and a very nail-biting first run on the CNC router, we had success. The software we used for the HASS CNC mill was now able to export code that the CNC Router could interoperate and do it accurately.

All and all, this project challenged me with my modeling knowledge, circuit board knowledge, CAM software understanding, and implementation (the programming software for the CNC router and HASS CNC mill). It was exciting to see a project from the very beginning to the end, from a single prototype to a product that we could produce repetitively and efficiently. I do not think many young men get to say that they saw a project like that through and through like I did and the few other young men I had the privilege to work alongside. Most people do not get an experience like this till they are at the end of their college career or into their desired career path."

Barry's project has offered Junior mentors job opportunities, marketing skills and helped sustain Walking Tall.

And let us not grow weary of doing good, for in due season we will reap, if we do not give up. Galatians 6:9

If you haven't ever supported Walking Tall, please consider a one time donation or regular monthly donation to support and continue offering many skills to these young men. Thank you so much! Walking Tall: PO Box 3789 Central Point, OR 97502 or walkingtallso.org for online donations.