

Camp Infinity



ROBOTS & GOD ADVENTURE WORKSHOP Certificate of Completion

_____ successfully competed Camp Infinity's Robots & God Adventure 3-hour workshop at Teach Them Diligently homeschool conference in Sandusky Ohio, April 2017.

Robots & God Adventure Workshops are designed to expose students to technology (robots, computers, software) and theology (uniqueness of man, Creation, salvation, role of technology in a fallen world, God creation vs man made, humans are created in the image of God, machines are made by man, the creation mandate). Here's a summary of the things we covered in workshop.

Theology of Technology -- our desire is to inspire each student to consider the greatness of our Creator, so we start each workshop with a video from Answers in Genesis and ask them to identify things created directly by God (days 1-6 of the Creation Week) and things made by man (things we refer to as technology). We teach kids that technology is a way for us to bring glory to God by taking things He has created and repurposing them for man's good and God's glory. Technology helps us fight against the immediate effects of the curse but only Jesus Christ can give us a permanent solution to the effects of the curse. We emphasize that we live in a world in which many think technology will one day save us from death and disease. The Bible makes it clear these are a result of the penalty for our sin and that only the blood of Christ can take away this penalty. We also discussed a question that our young people will face from their culture -- "What does it mean to be human?" As robots become more "human like" in their appearance and functionality, many are beginning to ask this question. We teach our campers the Bible makes this very clear - humans are distinct because we are made in the image of God. We have an eternal soul. Animals do not. Plants do not. Machines do not.

Teamwork -- This is where we spend time discussing aspects of working as a team -- communication, getting along, listening, including all members, and basically just understanding that STEM is all about teamwork. We encourage the participants to consider what it means to be made in the image of God and how they should respect each member of the team and appreciate the gift(s) God has given to each one. During the workshop we carefully observe each team and try to help them work through any communication or personality differences they may encounter.

Programming -- For years we started each workshop building a robot and then programming it. The problem with this approach is that once you put legos in front of the students, it is very hard to get their attention away from them in order to focus on the much harder and more rewarding task of programming. Programming is purely a mental activity which requires much focus and attention. Personally I believe it is also the most rewarding aspect of robotics - teaching a robot what to do. The possibilities are endless, limited only by one's imagination and level of intelligence, both gifts given to us by our Creator, having been created in His image! We used an app on the iPad called [Light Bot](#). This taught the basics of programming -- logic, sequencing, testing, debugging and problem solving. Kids love it because it looks and feels like a video game while teaching them valuable programming skills.

Building -- This is when things start getting exciting (if noise level is a good gauge for excitement) as students working together build their robot. This is a great exercise in teamwork as each team member brings his/her ideas to the table and they must decide which features to implement. Working with gears, motors, sensors and Lego blocks, each team makes a robot and then has to demonstrate it can perform basic tasks like move forward and backward, go in a square, detect a wall and turn around, etc. Once the team has accomplished these, they can either create their own challenge or take one that we provide. There is no limit to the amount of time or creativity students are willing to invest at this point in the workshop. We take occasional breaks to celebrate the "aha moments" of each team when they finally figure out the flaws in their code or the error in their design.

Demonstrating -- Finally comes the time for each team to show and explain their work. Demo time! Always an exciting way to end a workshop. We encourage students to articulate what they've created. We believe students who are not taught how to speak up and speak out properly will be frustrated later in life as their minds will come up with lots of great ideas and solutions but if they cannot articulate and persuade those with whom they work their ideas will likely not take flight. We enjoy having parents join us when they can for these robot demonstrations.

Camp Infinity's mission is to inspire students to explore how science and technology integrate with a creation apologetics worldview, preparing them to explain and defend their faith and succeed in their STEM education and in their future careers.

Dan Wooster