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Pittsburgh Public Schools Student, Thomas Aldous' Remote Rescue Robot Takes Top \$25,000 Broadcom Award

PITTSBURGH, PA, November 18, 2022 – <u>Broadcom Foundation</u> and <u>Society for Science</u> announced that Pittsburgh Public Schools student <u>Thomas Aldous</u>, 14, has won the coveted \$25,000 Samueli Foundation Prize, the top award in the Broadcom MASTERS*, the nation's premier science and engineering competition for middle school students. While attending Pittsburgh Colfax, 8th-grade student Thomas Aldous, now a freshman at Pittsburgh Allderdice High School designed and developed a robotic hand that can be used in situations that might be too dangerous for humans, like a natural disaster. The Board of School Directors for Pittsburgh Public Schools will celebrate Thomas' achievement with a Distinguished Achievement Award at its November 22nd virtual Legislative Meeting.



"Pittsburgh Public Schools students continue to shine locally and across the country," said Superintendent Wayne N. Walters, Ed.D. "We congratulate Thomas on this magnificent achievement that may be one of the most effective tools to assist in disaster relief and discovery in the future."

Thomas impressed the judges with his leadership style, collaborative spirit, and innovative research project. His remote-controlled robotic hand connects fingers on a glove to threads that link to spools with electronic devices. A control board uses data from the devices to prepare and send instructions to the hand, which then mimics the glove-wearer's movements. Through his design process, Thomas sought to ensure that the controls for his robotic hand would be simple and intuitive. The \$25,000 prize is a gift of Dr. Henry Samueli, Chairman of the Board, Broadcom Inc., and Chair of the Broadcom Foundation and his wife, Dr. Susan Samueli, President of the Samueli Foundation.

"Congratulations to Thomas Aldous on winning the top award in the 2022 Broadcom MASTERS," said Maya Ajmera, President and CEO of Society for Science and Publisher of *Science News*. "Thomas's robotic hand has the exciting potential to help search and rescue workers. Like so many other of our amazing finalists, Thomas looked around him and identified a problem in our world that he sought to solve through STEM."

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The Broadcom MASTERS (Math, Applied Science, Technology and Engineering for Rising Stars), a program of Society for Science, awards middle school students for their STEM passions to inspire them to continue their pursuit of science and engineering. Thirty finalists, including Thomas, took home more than \$100,000 in awards. Other top winners took on issues ranging from honeybee colony collapse to understanding human memory.

The competition took place in Washington, D.C., back in person for the first time since the 2019 competition. Each of the 30 finalists participated in team challenges in addition to being judged on their science research projects. The challenges leveraged project-based learning and tested their mastery of 21st Century skills of critical thinking, communication, creativity and collaboration in each of the STEM areas. During the team challenges, the finalists designed a quantum board game, studied blue crabs to build a robotic arm using hydraulics and developed devices that could detect early-stage Parkinson's tremors. To see the complete listing of awardees visit 14-year-old Develops Robotic Hand to Help with Disaster Recovery; Wins \$25,000 Top Award at the Broadcom MASTERS - Society for Science.

"These finalists hold a special place in our hearts as our last Broadcom MASTERS class," said Paula Golden, President of Broadcom Foundation. "Broadcom Foundation is excited to hand the baton for the middle school competition over to Thermo Fisher Scientific, a company that we know places equally high value on STEM education, and we look forward to being part of their celebration of excellence through the Thermo Fisher Scientific Junior Innovators Challenge."

This year marks the culmination of Broadcom Foundation's proud 12-year sponsorship of the Society's middle school STEM competition as Thermo Fisher Scientific becomes the new title sponsor of the Thermo Fisher Scientific Junior Innovators Challenge. Broadcom Foundation will continue partnering with the Society through the *Broadcom Coding with Commitment Award*, which will be given to a Thermo Fisher Scientific Junior Innovators Challenge finalist who combines STEM learning with coding to solve a community problem that aligns with the 17 Sustainable Development Goals of the United Nations.