

Mechanics of Materials Honors Students Mentoring Arbutus Elementary School Students

Team Membership

Stephen Gienow

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AES Lego Robotics Club – Team Blog

So far the honors experience in ENME 220H has been rewarding for us. The opportunity to do extra theoretical problems has helped improve our understanding of the course material. The guest speakers have all been engaging and informative. The speakers from the Baltimore departments of transportation and water gave us interesting insights into the engineering aspects of our city's public works departments. The tour of the Baltimore Traffic Control Center was exciting; we were all very interested by the inner workings of traffic control. The Skype sessions with GE Appliances and GE Aviation were both very useful looks into types of engineering careers we could pursue after graduation.

Our group's project is to teach an after school Lego Robotics based learning course for the students at Arbutus Elementary School. Using the Lego WeDo learning kits, we facilitate eleven 4th to 5th grade students to meet after school to explore simple engineering concepts. The goal of this program is to promote interest in technical fields such as engineering from a young age. Our hypothesis is that young students become more interested in technical fields like engineering when their learning courses such as Lego Robotics are taught by engineering students (as opposed to parents or non-technical teachers). Currently we have completed 4 weeks of the 6 week program and are on track to finish the student projects and evaluate how much the students have learned as well as how interested they are in technical fields.



An example of a Lego WeDo project and the associated programming component. This project utilizes concepts from gears, pulleys, and motion sensors.



Mechanics of Materials Honors students Stephen Gienow (left) and Frey Mattingly (right) mentoring Arbutus Elementary school students.



Mechanical Engineering student Leah Mason Mentoring Arbutus Elementary School students on Halloween as part of the BreakingGround supported Honors Mechanics of Materials Honors section Delivered by Professor Panos Charalambides.