

APR14-2014-000565

Abstract for an Invited Paper  
for the APR14 Meeting of  
the American Physical Society

**The Innovation Hyperlab: a Physical and Curriculum Framework for Fostering Innovation From  
Grade School to Grad School**  
RANDALL TAGG, University of Colorado Denver

A versatile laboratory for open innovation has been created in a former auto-shop-instruction building adjacent to Gateway High School in the Aurora Public Schools district in Colorado. We have equipped this 2500 square foot space with resources to support fifty-two technologies, such as mechanical design, electronics, optics, and nanotechnology. Correspondingly, we are developing a web site to provide modular instruction around each of these technologies. The goal is to enable collaborations of secondary school students, university students, teachers, professors, and industry partners in an environment richly supported by both physical and educational resources. An Innovation Academy is currently in progress in the lab with projects such as surgery in zero-G and using music to script the motion of actuator arrays in robots and rehabilitation devices.