

Escape from Polymer Island

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Escape from Polymer Island – an educational video game about polymers

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Video games have the potential to be exceptional learning tools, since they use proven pedagogical methods such as visualization, experimentation, creativity of play, and solving of problems that develop critical high level thinking. In this project, the REU student will work to create an immersive educational video game about the broad field of polymer engineering. The REU participant will work with a group of graduate students who have been developing the plot and educational components for the game, and will build upon the initial programming done using the Unity – 3D Game Engine for game play and Cinema 4D studio for animation design. The motivation for this project is two-fold. First, games stimulate curiosity due to elements of fantasy and presence of challenges. Therefore, players of the game will learn about polymer engineering in a medium that is intrinsically self-motivating and rewarding, and thus the learning will be more effective. Second, presenting the educational material through a video game format will improve diversity and societal awareness of polymers and materials engineering by communicating in a youth-oriented venue that is appealing to today's students.