

Micro golf through robot: way to let student learn elusive theory via small game intuitively

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Abstract:

Since there are abstract theories and equations in robot technique, a big challenge for us is how to convey the knowledge to students effectively, especially to those without any engineering background. To address this issue, PI will develop an intuitionistic robot platform to let them find a connection between what they learn and what they see, thereby to help student to understand the theories better. In this project, a micro robotic manipulation platform under optical microscopy will be build, named as "micro golf court". Students can hit the "ball" with the "golf club", which are fabricated via nano fabrication nanotechnology, by controlling the robot under microscopy at the scale ten times smaller than the size of human hair. PI hopes this project can help students to learn robot more efficiently and effectively, and to develop the interest to science though the intuitive game.