A novel method is proposed for how LEGO race cars can help students increase their understanding of uncertainty and motivate them in physics labs. The intervention was developed for students in an introductory physics topic with a high early drop-out rate. In this talk, I will discuss the results of the study and how variations in the delivery yielded better learning outcomes. We subsequently adapted the delivery of the LEGO labs for a large Engineering Mechanics cohort. For Engineering, the findings show that LEGO physics was instrumental in teaching students ideas of measurement and uncertainty, improving their lab reporting skills, and was a key factor in reducing the early attrition rate.

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