

Abstract Submitted
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The Effect of Person's Height on Projected Soccer Ball Throw

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— In this project, undergraduate science minors applied the concept of projectile motion to soccer.¹ They explored the effect of person's height on a soccer ball's projectile motion. Does the height of a person change the range of the soccer ball? In soccer the term “follow through” is applied to situations when the ball is kicked. Follow through refers to the distance the leg travels after the ball is kicked. The idea is that the more a person follows through, the less height and greater distance the ball will cover. Inversely, the less the player follows through, the higher the ball will go but will not cover as great of a distance. Based on the assumption that taller individuals have longer legs, they will then therefore tend to cover a greater distance after striking the ball. Logger pro is used for data analysis and shows significant differences based on the player's height.

¹D. Sharma and K. Farah, “Introducing the ‘RPPTM’ Model of Teaching Physics to Health Science Majors,” *Bulletin of the American Physical Society*, s2014, 59 (4) B1.00005)

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