

Joshua Snyder
Ready, Aim, Fire!

The purpose of this investigation was to determine which airsoft barrel improves the ballistics when an airsoft bb was fired. I hypothesized that if the barrels (smooth bore, rifled bore) were varied, then the ballistics of a rifled barrel would have increased performance in accuracy but would have comparable results with force. This experiment involved shooting airsoft bb's through barrels (rifled, smooth). The smooth bore barrel was the control. The bb's firing power came from an air compressor, firing at 120 psi. The two criteria for comparing the barrels was accuracy (observed on a paper target with a bullseye) and force (observed in ballistic gel). Based on the evidence, it is reasonable to conclude that the rifled barrel did have better ballistics because on average the rifled barrel was 8 mm more accurate than the smooth, and had more force (8.2 more mm penetrated).