

ENGINEERING THE GAME OF GOLF

“Scientists study the world as it is. Engineers create the world that has never been.”

– Theodore von Karman

Engineering is man’s application of scientific and mathematical knowledge to build nearly everything we see around us. Computers, buildings, bridges, ships, planes and – YES – even the equipment used in the game of golf.



ROBOT GOLFER

The USGA Test Center uses a Robot Golfer to test more than 30,000 golf balls per year.

“It is important to use the robot,” says Dr. Steven Quintavalla, senior research engineer at the USGA Test Center. “With the robot we can keep the speed of the swing the same each time. That way the only thing that changes is the ball.”

Q: Why do you think it is important for only the ball to change when testing balls with the Robot Golfer?



EASIEST QUIZ EVER

CHECK “YES” FOR EACH THING BELOW THAT REQUIRES ENGINEERING:



YES YES



YES YES



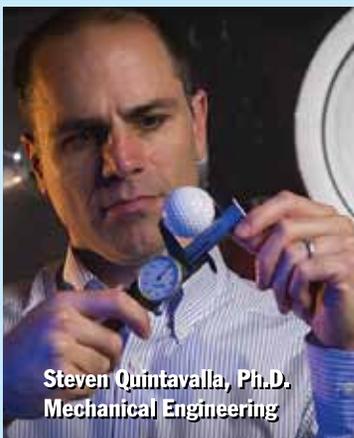
YES YES



YES YES

WHAT IS A VARIABLE?

In experiments, a **variable** is something that can be changed, or can affect the outcome of an experiment in different ways.



Steven Quintavalla, Ph.D.
Mechanical Engineering

FAST-PACED RESEARCH

At the USGA Test Center, Dr. Quintavalla studies golf balls and other golf equipment. He also helps the USGA write rules that make sure the game is played fairly.

Dr. Quintavalla likes the fact that when he goes to work each day, there are always new and

different challenges. Because advances in technology lead to new equipment, he and the USGA team are there to review and test them.

“Even though technology can improve and change, it’s important to make sure the game of golf is first and foremost a

game of skill,” says Quintavalla. “When new golf equipment comes out, we check to make sure that it conforms to the Rules of Golf.”

And, Dr. Quintavalla likes things that go fast – like golf balls and the race cars he works on in his spare time!