South China Morning Post
Tuesday, November 9, 2004 www.scmp.com

Golfers get into hi-tech swing

By Stuart Biggs

Byline: *The drive to hit the ball further means clubs are fitted with more electronic devices, writes Stuart Biggs.*

Tuesday, November 9, 2004

Technology and golf have gone hand in hand since Old Tom Morris began trudging the dunes of St Andrews in the 19th century.

Every step of the journey – from gutta percha balls and hickory sticks to graphite shafts and Big Berthas – has resulted in longer drives and lower scores. Technology has made the game more accessible by enabling lowly hackers to emulate the booming drives of the pros.

Longer and straighter has been the mantra of club and ball manufacturers since the game began, and club players and professionals have fuelled a multibillion-dollar industry in their quest to hit the ball a few yards further.

But there is a growing feeling around the game that these technologies may have run their course. While performance has improved dramatically in the past few years, industry observers say that, in club design at least, manufacturers are in danger of coming up against a brick wall.

"The people that make clubs have done a marvellous job of pushing the technology close to the limit," said Dick Eyestone, the chief executive of American firm SmartSwing.

Manufacturers were limited by rules governing the maximum coefficient of restitution, the measurement of the club's ability to rebound the ball, which is set at 83 per cent by the United States Golf Association (USPGA).

"Shafts and club heads are getting close to as good as they can be, so all club makers will have to find a way to differentiate themselves – there's no longer a big difference between a Callaway driver, or one by Ping, Nike or Taylor Made," Mr Eyestone said.

SmartSwing's answer is the LS300 driver, a computerised golf club equipped with flash-based memory, integrated circuitry, accelerometers and gyroscope sensors in the shaft. Mr Eyestone developed the club as a practice tool after what he described as his Groundhog Day lesson, referring to the film starring Bill Murray. "It felt like I was getting the same lesson over and over – 'your swing is not on the right plane'. This triggered the tinkerer in me," he said.

The veteran of four technology start-ups came out of retirement to create a practice club that gives instant audible feedback during each swing, and records the data of an entire practice session for analysis on a computer.

"We are trying to build a complete learning system for golfers," he said. The driver ships with swing analysis software that includes a 'reference pro' for users to see how their ugly lurch measures up to a perfect swing.

SmartSwing has sold just 41 units since the launch a month ago, but it said the same rules that applied to other technology start-ups also applied to SmartSwing. "The aim is to make each generation of the technology smaller, faster, cheaper and better."

SmartSwing will release a six-iron and putter in the coming months, and introduce a personalisation service, where customers can have the technology installed in their own clubs. “People want to practise with what they play with,” Mr Eyestone said.

Even the golf tee, the only piece of kit that golfers were happy to snap on every hole, has received a facelift by Japan based sports company Tabata, which has a patented design that claims to give up to 10 extra yards per drive.

However, there is a growing perception at the top of the game that product development has gone too far. A survey by Sports Illustrated found that 60 per cent of professionals on the USPGA golf tour favoured imposing limits on golf balls to reduce the distance they travelled. The Royal and Ancient Golf Club of St Andrews, the sports governing body outside the US and Mexico, has come under pressure to limit the impact of technology on the game. But R&A spokesman Steve Otto said the issue was all about striking a balance.

Mr Otto said: “We regard innovation and the evolution of technology as intrinsic to the game of golf and something which is healthy in inspiring interest in the game. We maintain equipment rules which seek to preserve the challenge of the game and ensure that skill differential is not eroded.”

But as players hit the ball further, courses are becoming longer and wider – using up more land and increasing construction and maintenance costs by up to 17 per cent.

David Pandel Savic, a member of the American Society of Golf Course Architects, is concerned technology might be increasing the cost of play.

“I’m not sure that new technology is always driven by what is good for the game. It tends to be driven by profit and loss to the companies that provide this new technology, and the distance of how far the ball can travel is driving the market,” he said.

Driving Force

By installing flash-based memory, sensors and IC circuitry inside the shaft, an ordinary club is turned into a sophisticated training tool capable of providing instant feedback and detailed swing analysis.

During practice, the device compares the user’s swing against an “ideal” reference swing, providing audio feedback.

The club can record up to 100 swings, which can be analysed individually on a PC. The software can also compile aggregate information over an entire practice session.