Seeking to build a better mouse, IBM comes up with mini-joystick.

According to Ted Selker's work, a better computer mouse has new life to IBM's moribund laptop computer business. Selker and fellow IBM scientist Joseph Krueger created Trackpoint II, a new cursor control button on the keyboard of IBM's Thinkpads. The invention, brought to the market a decade ago, was radical for IBM, which has since been viewed as falling behind in PC technology.

Competitors' laptops chiefly rely on trackballs — stationary rolling balls placed in or attached to computers to move the cursor that directs other commands. The Trackpoint functions like a mini-joystick.

"Trackpoint has been a very good competitor for them and it's been an important part of the overall success of the Thinkpad line," said Jeff Henning, a PC analyst for BIS Strategic Decisions in Norwell, Mass.

The peg is also on the keyboard of some desktop models and may become an option for others.

But the decision to incorporate Trackpoint II didn't come easily. The researchers put some pressure on IBM by touting it in a news release, which prompted some customers to ask when it would be available.

"One of the things we really needed was for the product managers to believe this was going to make a splash," Selker said.

"A lot of what it took to get it into a product was documenting carefully that it did make an improvement for people and that it could be made cheaply."

The project took six years, with most of the time spent finding the right balance between finger pressure and cursor speed.

The researchers created a dead zone in which the cursor doesn't move if the button is accidentally bumped, two slow speeds, a fast speed the eye can follow and a turbo speed the eye can't.

"Everyone wanted to drive a Ferrari," Selker said.

IBM researcher Ted Selker, above, holds a notebook computer with the Trackpoint II cursor control button on the keyboard. The device, below, functions like a joystick.