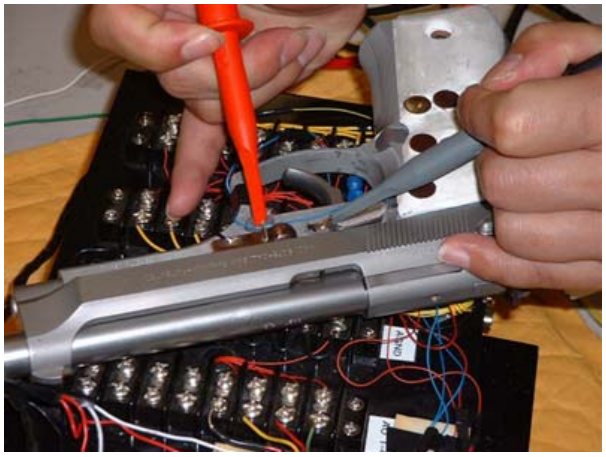
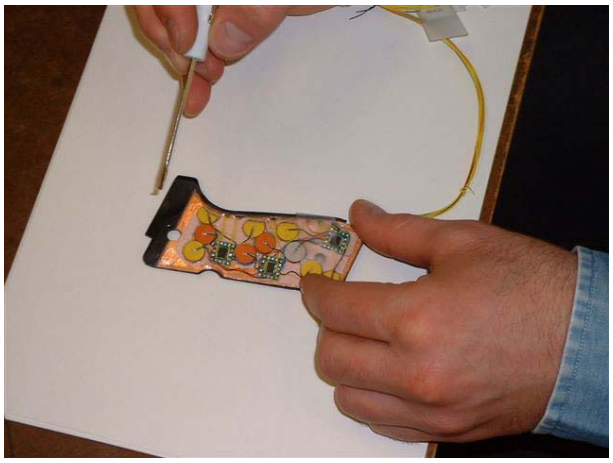
Credit for photos goes to New Jersey Institute of Technology (NJIT).

LAYOUT AND ASSEMBLY OF SENSORS—Mechanical engineer Dmitri Shiskin, PhD, a research associate at New Jersey Institute of Technology (NJIT), is shown working about a year ago on the sensor layout and assembly of the fourth-generation experimental smart gun, which NJIT policemen are now testing monthly at a Bayonne firing range. Shiskin's challenge was to design a gun grip containing both electronic sensors and microchips.



TESTING THE TRIGGER—A researcher on the smart gun team tests the gun's trigger switch. Beneath his hand sits a digital signal processor box.



ANATOMY OF A GRIP—If someone were to open the grip of the current gun now being fired and tested by the NJIT police, it would look like this. Shown in the photo is a close-up of the grip featuring sensors and three microchips.

MORE ABOUT THE TRIGGER—Another angle showing researchers testing the trigger switch.

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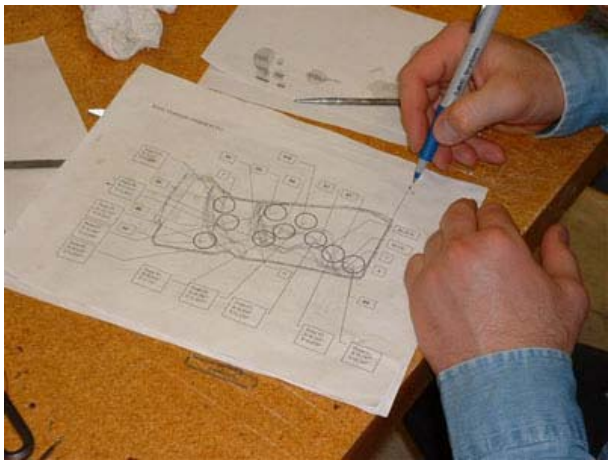

Dmitri Shiskin designs the layout for the sensors on paper before installing the real sensors as well as microchips in the gun's grip.

Sensors in an older generation of the current handgun once looked like this. Newer generations of the handgun will have sleeker, smaller sensors and microchips at least half the size of the ones in this photograph.

REPLICA GUN—Researchers used this fourth-generation replica of smart gun for demonstration purposes. The attached wires would be used to transfer data from the sensors on the gun grips to the digital signals on a processor box. The processor box is not shown.

REAL THING—The fourth generation of smart gun now being used in the test firings is shown above with its digital signal processor box. The box takes information relayed to it from the shooter's grip and compares that data to stored information. Eventually when smart gun is manufactured and ready for users, it will contain inside the gun handle a miniature version of the processor box shown above.