Police across the nation will soon be using facial-recognition devices that easily connect to an iPhone. Civil liberties groups have warned that the technology could infringe on privacy rights.

Dozens of law-enforcement agencies from Massachusetts to Arizona are preparing to outfit their forces with controversial hand-held facial-recognition devices as soon as September, raising significant questions about privacy and civil liberties.

With the device, which attaches to an iPhone, an officer can snap a picture of a face from up to five feet away, or scan a person's irises from up to six inches away, and do an immediate search to see if there is a match with a database of people with criminal records. The gadget also collects fingerprints.

Until recently, this type of portable technology has mostly been limited to military uses, for instance to identify possible insurgents in Iraq or Afghanistan.

The device isn’t yet in police hands, and the database isn’t yet complete. Still, the arrival of the new gadgets, made by BI2 Technologies of Plymouth, Mass., is yet another sign that futuristic facial-recognition technologies are becoming reality after a decade of false starts.

The rollout has raised concerns among some privacy advocates about the potential for misuse. A fundamental question is whether or not using the device in certain ways would constitute a "search" that requires a warrant. Courts haven’t decided the issue.

It is generally legal for anyone with a camera, including the police, to take pictures of people freely passing through a public space. (One exception: Some courts have limited video surveillance of political protests, saying it violates demonstrators’ First Amendment rights.)

However, once a law-enforcement officer stops or detains someone, a different standard might apply, experts say. The Supreme Court has ruled that there must be "reasonable suspicion" to force individuals to be fingerprinted. Because face- and iris-recognition technology hasn’t been put to a similar legal test, it remains "a gray area of the law," says Orin Kerr, a law professor at George Washington University with an expertise in search-and-seizure law. "A warrant might be required to force someone to open their eyes."

BI2 says it has agreements with about 40 agencies to deliver roughly 1,000 of the devices, which cost $3,000 apiece. Some law-enforcement officials believe the new gear could be an important weapon against crime. "We are living in an age where a lot of people try to live under the radar and in the shadows and avoid law enforcement," says Sheriff Paul Babeu of Pinal County, Ariz. He is equipping 75 deputies under his command with the device in the fall.

Mr. Babeu says his deputies will start using the gadget try to identify people they stop who aren’t carrying other identification. (In Arizona, police can arrest people not carrying valid photo ID.) Mr. Babeu says it also will be used to verify the identity of people arrested for a crime, potentially exposing the use of fake IDs and quickly determining a person’s criminal history.

Other police officials urge caution in using the device, which is known as Moris, for Mobile Offender Recognition and Information System. Bill Johnson, executive director at the National Association of Police Organizations, a group of police unions and associations, says he is concerned in particular that iris scanning, which must be done at close range and requires special technology, could be considered a "search."

"Even technically if some law says you can do it, it is not worth it—it is just not the right thing to do," Mr. Johnson says, adding that developing guidelines for use of the technology is "a moral responsibility."

Sheriff Joseph McDonald Jr. of Plymouth County in Massachusetts, who tested early versions of the device and will get a handful of them in the fall, says he plans to tell his deputies not to use facial recognition without reasonable suspicion. "Two hundred years of constitutional law isn’t going away," he says.
BI2 says it urges officers to use it only when they have reasonable suspicion of criminal activity. "Sheriffs and law enforcement should not use this on anybody but suspected criminals," says Sean Mullin, BI2's chief executive.

The Department of Justice referred questions about the device to the Federal Bureau of Investigation, which didn't respond to a request for comment by late Tuesday.

Facial-recognition technology is going mainstream not just in police departments. Facebook Inc., the social-networking giant, recently rolled out facial-recognition technology to let its users more easily identify their friends in photos. Several iPhone and Android apps claim—with varying success—to be able to use cellphone cameras to identify Facebook friends by snapping pictures of them.

Middle Eastern and European countries use iris scans to recognize travelers at airports and border crossings. Some U.S. troops carry hand-held devices to capture faces, eyes and fingerprints of "known and suspected insurgents," according to Lt. Col. Thomas Pratt of the Defense Department’s Biometric Identity Management Agency. The agency says more than 7,000 devices, manufactured by L-1 Identity Solutions Inc. and Cross Match Technologies Inc., are being used in the field.

Internet search giant Google Inc. also considered, but rejected, a project that would have offered facial recognition on mobile phones. Google's technology would have let cellphone users take pictures of people, then conduct an image search on Google to find a person with matching facial features.

Google's chairman, Eric Schmidt, discussed the decision to shut down the project at a May conference. "I'm very concerned by the union of mobile tracking and face recognition," he said. "My guess is in free societies, it will be regulated."

A spokesman for Google says the company won't launch the facial recognition tools "unless we have strong privacy protections in place."

Face- and iris-recognition technologies are still a small portion, about 16%, of the $4.3 billion biometrics industry, which is dominated by fingerprint technology, according to market research by New York-based International Biometric Group LLC.

The technology has advanced greatly since a series of embarrassing setbacks after the Sept. 11, 2001, terror attacks. In 2002, Boston's Logan International Airport tested facial-recognition software, but pulled the plug after cameras failed to recognize airport employees whose photos were in the system. Since then, face-recognition technology has improved, and has been augmented to recognize irises, which are unique to individuals.

BI2's device attaches to the back of an iPhone, adding about 1.75 inches to its width. It plans to offer a version for Android phones in the future. The company says Moris will be sold only to law-enforcement agencies, although it is considering building applications for the health-care and financial industries.

The device links to a database of criminal records, iris and face images contributed by local law enforcement that use other BI2 technologies. "The database is the golden nugget of the whole thing," says BI2's Mr. Mullin.

The database includes face and iris data collected primarily when people are admitted to or released from a correctional facility, Mr. Mullin says. Some states also are contributing mug shots to the database.

BI2 says it doesn't sell the data, since it doesn't own it. The company hopes to eventually access additional data from larger state and federal databases, such as the FBI's registry of fingerprints or the driver's-license photos from motor-vehicle departments.

William Conlon, chief of police in Brockton, Mass., says he doesn't consider the mobile device to be an invasion of privacy. "It is just a picture. If you are out in public, I can take a picture of anybody," says Mr. Conlon, whose police department tested a prototype last summer and is planning to adopt the device. "Most people will say, 'I don't have anything to hide, go ahead.'"

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