



ECX108- Iris drug detection device

Version 1.0

Specification

Version Update

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1 Product Overview

1.1 Background

Nowadays, drug abuse and drug trafficking have gradually become a serious problem all over the world. It hurts people health and increase criminal risks, which causes more violence for society. It has become a must for the whole international society to effectively control drugs. Drug testing becomes one of important phases in combating drug violations and crimes, as well as in drug control and drug rehabilitation.

Court scientists are committed to applying various advanced analytical techniques for drug detection, and at present the detection of drug use at and abroad is mostly a qualitative and quantitative analysis of drug metabolites in various samples and biological samples. Currently the relevant departments rely on urine testing for the identification of drug addicts. This method has the disadvantage of long time and high false positive rate. It can only be used to screen drug addicts for the first time, and those who test positive for urine may be drug users, and those who have a negative urine test also has the possibility of being drug addicts. Because the test result may be disturbed by food, drugs or its own metabolism.

In March 2015, the Ministry of Public Security in China issued a notice on strengthening drug use testing for key suspects. The circular requires public security organs throughout the country to take drug use testing as an important means of

screening and discovering drug addicts, which can not only effectively reduce the accidental risk of illegal criminal suspects in the process of review and detention, but also an important way to curb the development and spread of drugs and reduce the harm to the society of drugs.

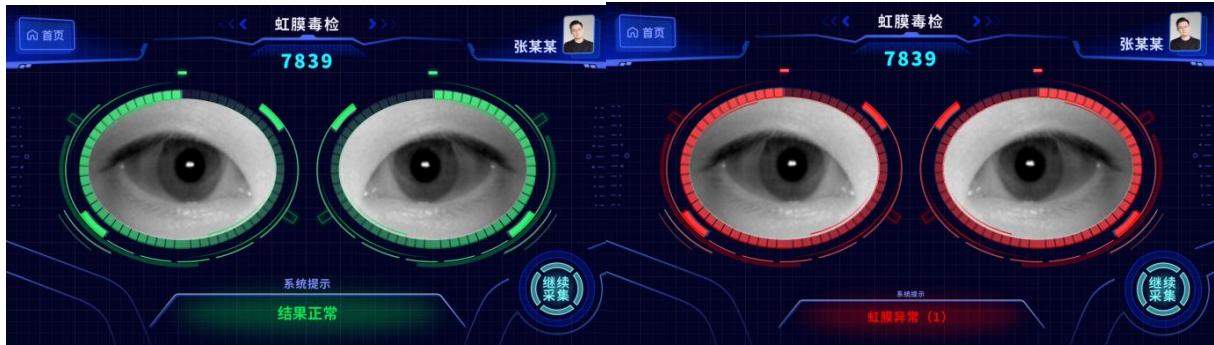
2 Core Functions

Iris Drug Tester is a mobile device developed by Eyecool and can be used for quick filtering of drugs addicts.

2.1 One button to quick filtering

The device integrates an iris drug detection module, equipped with a 5-inch high-definition touch screen and its own 4G and WiFi communication modules, and do not need networking. It can achieve one-click screening, which can complete the collection of sample collection in 5 seconds and output the screening result in 10 seconds.





2.2 Double online Verification

The product comes with two modules, one is iris capture module which can capture high resolution binocular iris image compatible with criminal investigation standard, and the other is a face camera module, which conduct face verification online via 4G/WiFi or offline with embedded ID card reader.

In addition to the face identity information, the iris information obtained during drug screening process can fully meet the specifications of the criminal investigation iris data of the Ministry of Public Security, and can be verified with the criminal investigation iris database to confirm the identity information of the person being collected.

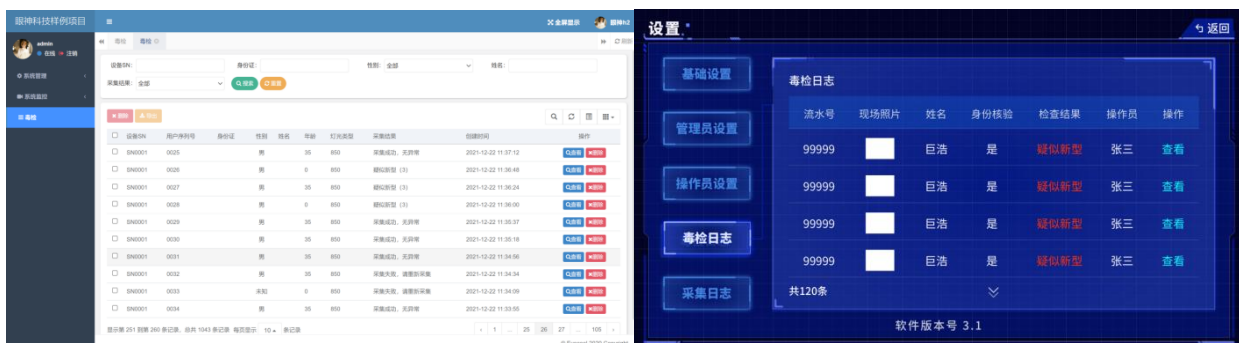
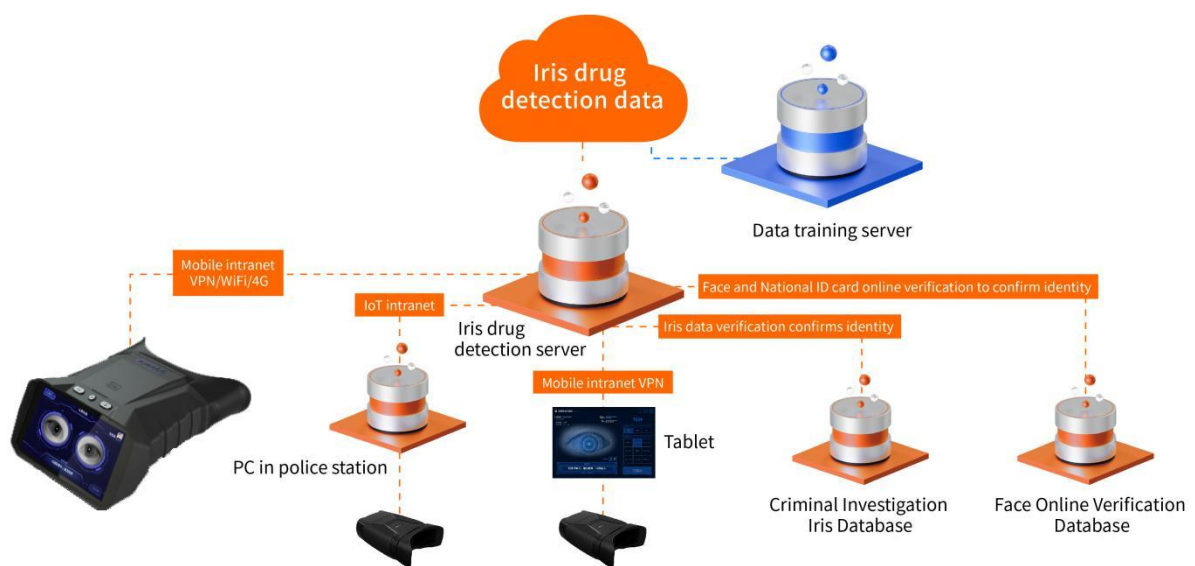


2.3 Networked real-time online law enforcement

The device can run the drug screening function completely independently, and can also be connected with the public security intranet server in real time to conduct online law enforcement. All the collected data is comprehensively processed on the cloud, and only the authentication log is retained locally to ensure data security.

The server data can be jointly handled with other public security system data, and the drug detection iris data can also be used for AI algorithm deep learning training and analysis, which can continuously improve the accuracy of algorithm

IRIS DRUG DATA ARE CONTINUOUSLY COLLECTED AND ANALYZED



3 Specification

No.	Items	Specification
1	Screen	5 inches, 720P resolution, multi-touch
2	Camera	- Equipped with 4M RGB HD color image sensor, supports backlight and low light wide dynamic imaging (face capture and recognition) - Equipped with 2M IR High-definition infrared image sensor (iris capture, recognition, drug detection)
3	Fill Light	- Visible light fill light - Near-infrared 810nm light source fill light
4	Button	- Button A: Rapid drug screening - Button B: Switch on and off - Button C: Quick iris identity verification
5	Card Reader	National ID card applicable (optional)
6	Communications	- WiFi, 4G - USB TYPE-C
7	Interfaces	USB2.0 ,TypeC,HOST OTG
8	Light Indicator	- Red: test positive for drug use; - Green: test negative for drug use;

		● Blue: Working status.
9	Speaker	Built-in 1W speaker, play prompt voice
10	Microphone	HD voice capture
11	Power	5V/2A
12	Users	10000 人
13	Distance	Contact acquisition (Tips: fit the eye cup tightly to prevent light leakage)
14	Capture Speed	<5s
15	Screening Speed	10s
16	Working Temperature	-20° —— +55°
17	OS	Android

4 Product Advantages

4.1 Flexible deployment, online/offline use

The iris drug tester is designed handheld and can be moved around any place to complete the drug test screening work. In the case of a poor network, it can complete the drug detection and screening work in the target place by a standalone machine; While the network conditions are good, the 4G/WiFi network can be used to communicate and coordinate with the iris drug screening management system

and the internal association system of the public security to complete the data upload and sharing.

4.2 Multi-functions System

The iris drug screening system can not only complete the rapid screening of drug test, but also realize ID card reading and authentication, equipment management, personnel management and data sharing. The iris drug screening system meets the standards of iris collection and verification of criminal investigation standards, and can be docked with the criminal investigation iris library to accurately verify the identity of personnel.

4.3 Binocular drug tester with high accuracy and keep improving

The iris drug screening system embeds a deep learning framework drug detection training engine independently developed by Eyecool Technology, which uses binocular iris image for drug detection and screening. Compared with some monocular iris drug detection device, it is more accurate. With the accumulation of user data, the learning of drug test data can be continuously carried out, and the improvement of drug detection and screening ability can be automatically completed.

4.4 Fast drug screening system

The iris drug screening system is embedded with the original iris drug detection algorithm of Eyecool Technology, which can currently complete a drug test within 20s, and the screening efficiency will be higher and higher in the future with the optimization and improvement of the algorithm.

4.5 Automatically complete the drug test work and data upload in real time to avoid illegal law enforcement

The iris drug screening system can automatically complete the identity collection verification and drug test screening of personnel, and upload the drug test collection data in real time. It can be greatly avoided due to some social relations of law enforcers, resulting in illegal law enforcement.

4.6 Strong deterrence ability for drug involvement

Through the above functional advantages, it can be seen that Eyecool iris drug screening system can quickly complete the drug detection and screening work, and the future drug-related crime space will become smaller and smaller, helping law enforcement personnel to comply with the law and enforce the law strictly, . It can greatly improve the deterrent ability of drug-related personnel to commit crimes and safeguard the dignity of the law.

5 Application Scenario



It can be widely used in entertainment site, hotel check-in, border control, driver, army and civil servants.

6 Certificates



FCC Statement

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.