

Innovation of AI technology screening system

# Cerviray AI®



Wireless **cervical cancer screening** device



Deep learning with **'Gynecologic Oncologists'** diagnosis data



Artificial Intelligence System Based on **IFPC** 'Swede Score'

[www.aidot.ai](http://www.aidot.ai)

**AIDOT**



# Cerviray AI®

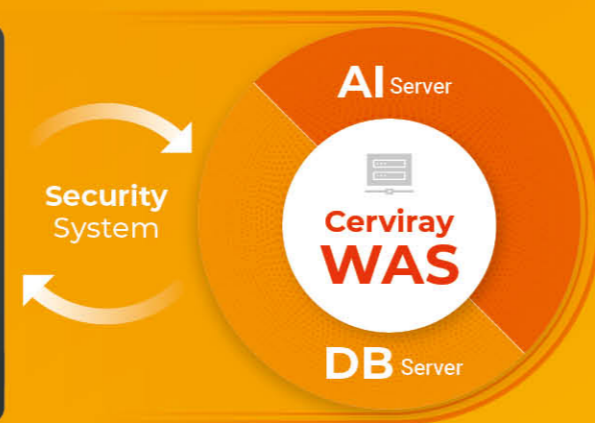
Cerviray AI is an artificial intelligence-based cervical cancer screening system that also supports efficient data reading from medical specialists through VIA (Visual Inspection with Acetic acid) method.

Even for inexperienced medical specialists and practitioners, they are now able to screen and read cervical dysplasia and cancer through the device Cerviray AI.

## Security & Maintenance for stable operation

AIDOT provides below services for '24 hours a day, 365 days a year'

- 1 Monitoring service.
- 2 Error system management service.



Deep learning AI system specialized for cervical cancer screening



Possible for both on-site and remote reading

On-site within **5 min** Remote within **24 h**



The effect of improving reading accuracy and shortening patient waiting time  
Artificial intelligence filtering ▶  
Final evaluation by medical professional

## Composition of Cerviray AI

### Hardware

- 1 Power On / Off
- 2 Zoom / Focus
- 3 Supporting Bar (For steady shot)
- 4 Micro SD card (Encrypted data)
- 5 Optical zoom lens With LED
- 6 Shooting Trigger
- 7 Embedded Battery



LCD Touch screen



The screen can be adjusted up to 15°



Tripod setting is available



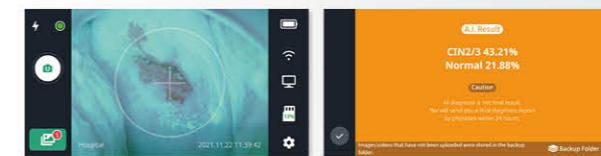
\*The tripod is not included in the basic product components

### Software (Screen)



Detail adjustment through Auto + Manual focus

Auto album



Green filter (On/Off)

Result screen







# Cerviray AI®

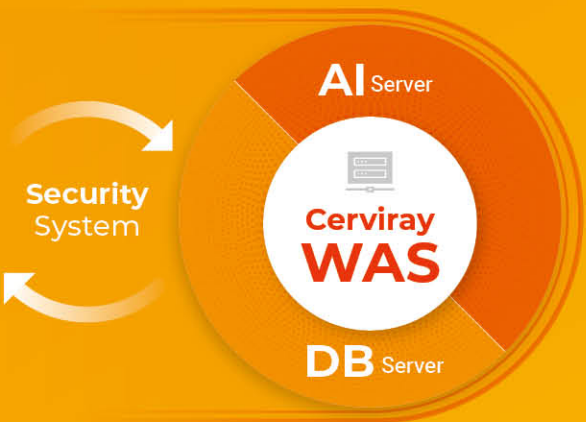
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## AIDOTNet v1.0 (A.K.A CerviAID v1.0)

### Product Features

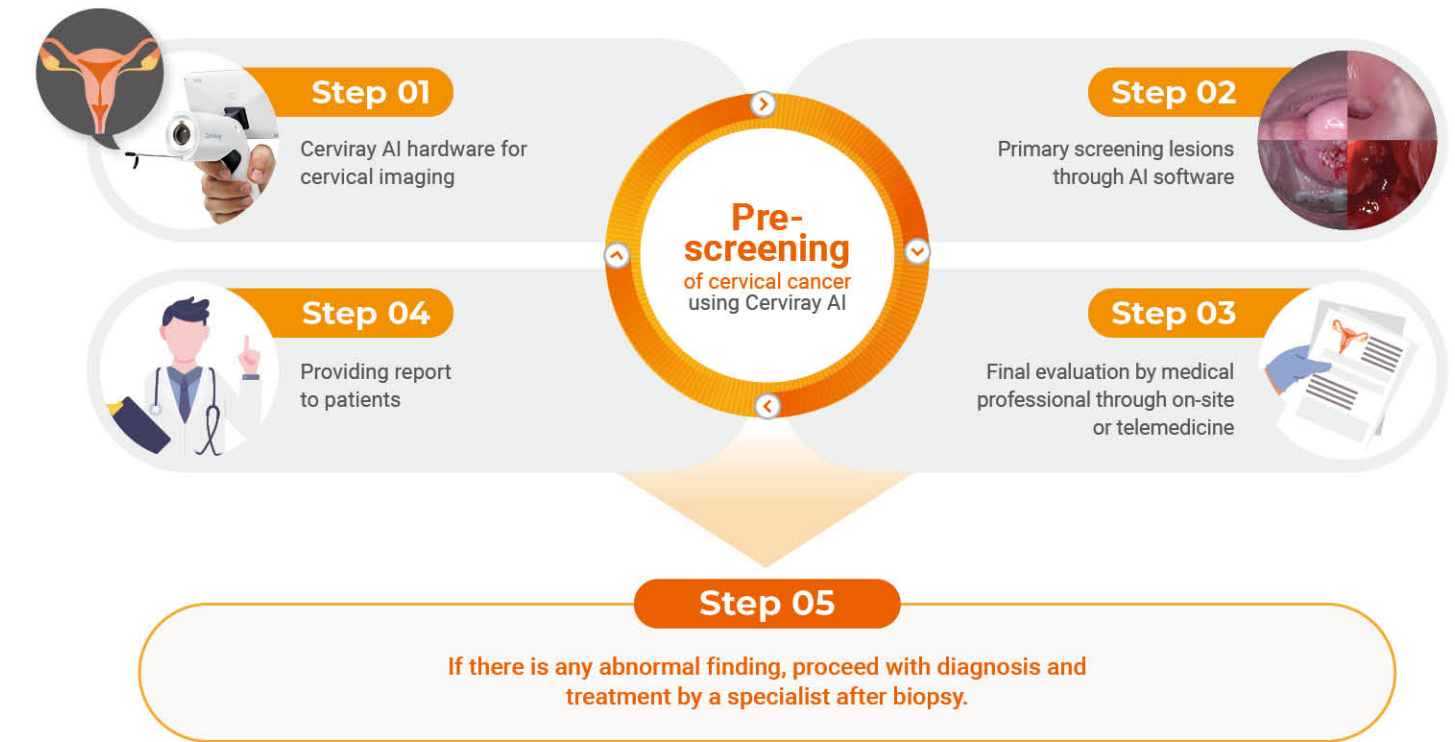
- AI-Based cervical cancer **on-site & telemedicine system**
- **Portable cervicography** with AI Software
- **Pre-acquired IRB approved database** from Korean top medical centers (Korea Univ. Anam and Bundang Seoul National Univ. hospitals)
- AI's main functions are '**Detection & Classification**' for cervical cancer
- Applied AIDOT's patented AI algorithm 'AIDOTNet v1.0'  
**Sensitivity 93%, Specificity 89% (AUC 0.944)+ AI Software**

### Artificial Intelligence

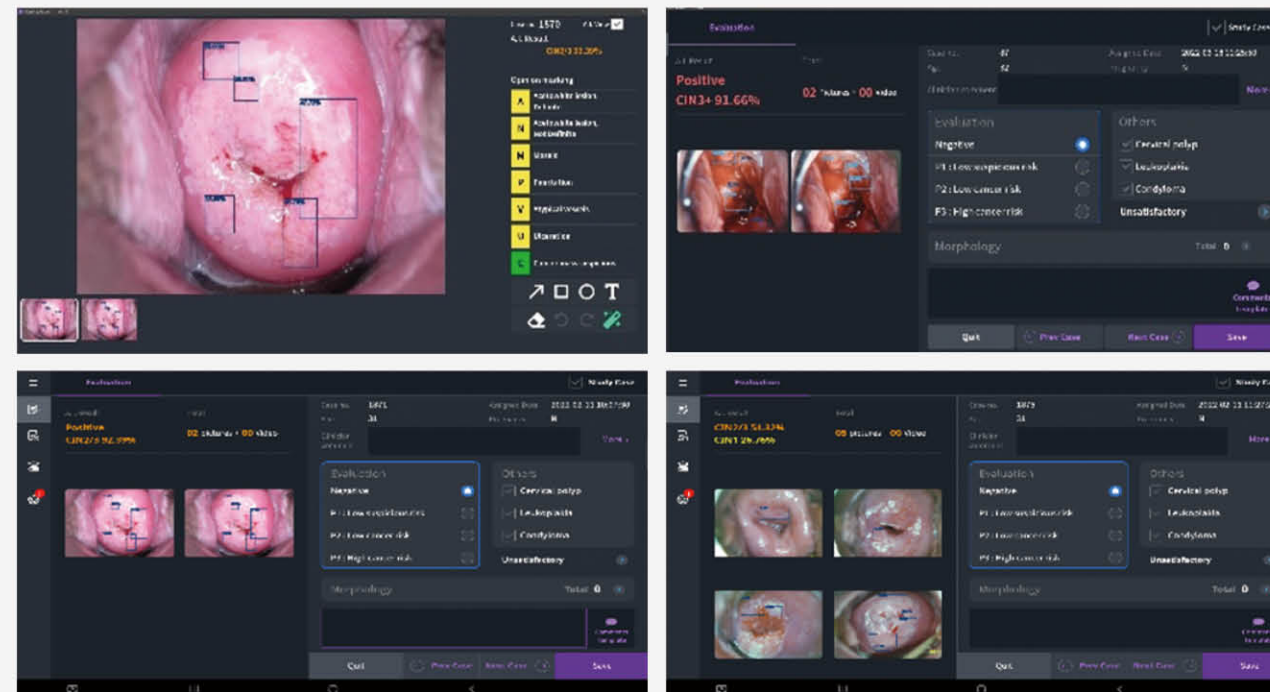
Through joint research with top medical centers in Korea, AIDOT has developed patented algorithm, AIDOTNet v1.0.  
It is specialized in cervical cancer detection which can be recognized as the fruit of the know-how for the best Korean Gynecologic Oncologists.  
Cerviray AI is applied with a four-stage Classification algorithm(Normal, CIN1, CIN2-3, CIN3+) that informs the risk of cancer and the detection algorithm that detects abnormalities in the cervix.

### Telemedicine

Cerviray AI service has realized a **non-face-to-face remote solution** in which patients undergoing cervical cancer screening and reading doctors are separated from each other.

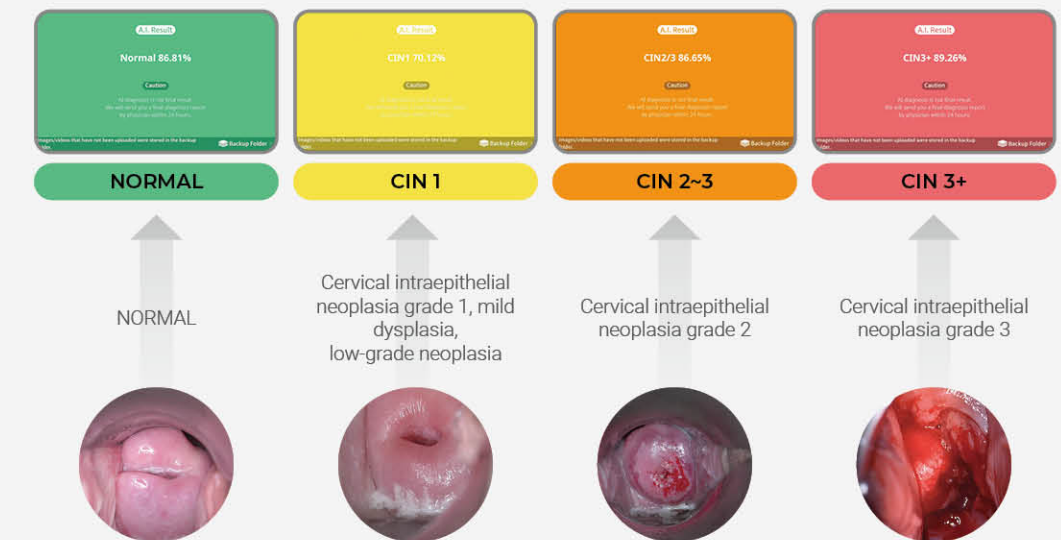


### AI Detection (Detection abnormalities on cervix)



### AI Classification

Through total four colors of results screen on Cerviray AI, both doctor and patient could recognize patients' medical status easier and faster than before



AI server AUC **94.4%**

Sensitivity **93%**

Specificity **89%**

※Unsatisfactory Pictures that are inappropriate for diagnosis ▶

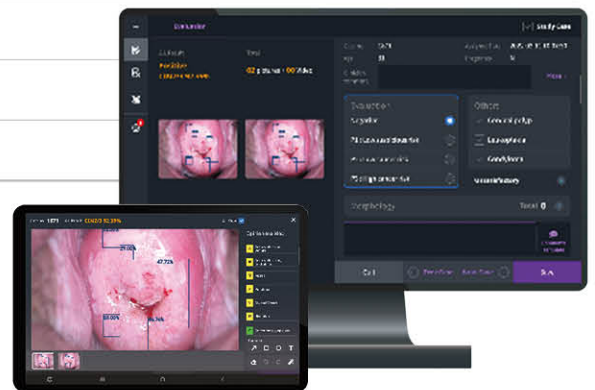


# Specification of Cerviray AI®

## ○ HW spec.

Model name. CDC -C02

SPECIFICATION	TECHNICAL DATA
Display	5"720*1280 IPS LCD + Touch Screen
Image Sensor	1/2.8 8.29 Mega -pixel CMOS Image Sensor
Zoom	Optical3X ~5X
Focus	Auto+Manual
F No	F3.2 ~F3.7
Effective image Circle diameter	Ø 5.9 2mm
Distance Sensor	TOF
CPU	Dual core ARM cortex-A7 CPU
RAM	DDR3 2G RAM



## ○ AI Software spec.

Model name. CERV-P-k01, CERV-E-k01

PLATFORM	SPECIFICATION	NOTE
OS	Windows Vista SP2 or later Android 8.0 or later	Compatible with both PCs and tablets
.Net framework	4.0 or later	-
CPU	Intel Dual core or higher	-
Memory	1GB or more	-
Storage	1GB or more	-
Resolution	PC version: Variable type Android Version: 1920 x 1200	-
AI Framework	TensorFlow	-
AI Network	AIDOTNet v1.0 (A.K.A CerviAID v1.0)	Self-developed AI specialized for cervical cancer screening Sensitivity: 93% / Specificity: 89%

