Profile

- The provider for the leading medical self-service system and smart-healthcare solutions.
- Effect smart healthcare, mobile healthcare and self-service of a whole hospital for the development of direction.
- Efforts to build a mobile medical ecosystem with EHR-to-cloud at the core.

1. research and development center
2. advanced production bases

650+ tertiary comprehensive hospitals
1,400+ employees

$50,000,000 B-round financing
3,500+ hospitals

Strategic Process
from 0 to 1; from $1 to $150,000,000
Copyright and Patents

- 61 kinds of software copyright
- 21 utility model patents
- 13 patents for invention
- 18 design patents

Professional Accreditation

- CMMI-ML3 international certification
- ISO-9001 and ISO-13485 international quality system authentication
- The national high-tech enterprise
- Engineering technical research center for digital information recording material
- Engineering laboratory for applied technology of medical-image big data

Honor
Partial Cooperative HospitalIs

End-to-end R&D Design Platform

Judging Medical has been specializing in the research and development in the medical niche for many years, and possesses independent core technologies, extensive product lines, perfect solutions to help hospitals realize the interconnection as well as to provide the intelligent service for the public. At its headquarters in Shenzhen city, it has about 200 software R&D personnel and about 100 hardware R&D personnel, who have international superior R&D technical ability.
Medical Film

Laser Film

Structure
Composed of the laser layer, PET base material and the protective layer

Media Sizes
RLF-14x17in
RLF-11x14in
RLF-10x12in
RLF-8x10in

Specifications
Dmax: ≥ 3.0D
Dmin: 0.11-0.19D
Thickness: 210±0.5μm
Haze: ≤ 20%
Basis-weight: 280±8 g/m²

Performance
Same as a laser film from USA

Thermal Film (A)

Structure
Composed of the thermal layer, PET base material and the protective layer

Media Sizes
RTF-14x17in
RTF-11x14in
RTF-10x12in
RTF-8x10in

Specifications
Dmax: ≥ 3.0D
Dmin: > 0.25D
Thickness: 205±8μm
Haze: ≤ 20%
Stiffness (TD): 11.0±2 mN

Performance
Same as a thermal film from Belgium
Medical Film

**Medical Film**

- **Structure**: Composed of the thermal layer, PET base material and the protective layer
- **Media Sizes**:
  - RTF-14x7in
  - RTF-11x4in
  - RTF-10x12in
  - RTF-8x10in
- **Specifications**:
  - Dmax: ≥ 3.0D
  - Dmin: ≤ 0.24D
  - Thickness: 200±5μm
  - Haze: ≤ 20%
  - Stiffness: 10.0±1mN
- **Performance**: Same as a thermal film from Japan
- **Compatible**: CLEAR Medical Film Printer 369-1, 369-2

Thermal Film

- **Structure**: Composed of the thermal layer, PET base material and the protective layer
- **Media Sizes**:
  - RTF-14x7in
  - RTF-11x4in
  - RTF-10x12in
  - RTF-8x10in
- **Specifications**:
  - Dmax: ≥ 3.0D
  - Dmin: ≤ 0.24D
  - Thickness: 204±8μm
  - Haze: ≤ 20%
  - Stiffness(TD): 10.0±2mN
- **Compatible**: CLEAR Medical Film Printer 369-1, 369-2
Medical Film

Medical Dry Film (Inkjet)

Structure
- Composed of silver-bearing PET base material and protective layer

Media Sizes
- Sheet:
  - RIF-13x17in
  - RIF-11x14in
  - RIF-10x12in
  - RIF-8x10in
- Roll:
  - RIF-14x51in
  - RIF-11x14in
  - RIF-10x12in
  - RIF-8x10in

Specifications
- Haze: ≤ 20%
- Dmax: ≤ 0.00
- Dmin: 0.11 - 0.19
- Thickness: 210±8μm
- Basis weight: 280±8 g/m²

Compatible
- Epson, Canon, HP, CLEAR

Medical Color Film (Inkjet)

Structure
- Composed of MPET base material

Media Sizes
- Sheet:
  - WIF-A3
  - WIF-A4
  - WIF-B5
  - WIF-16K
- Roll:
  - WIF-14x51in
  - WIF-10x12in
  - WIF-8x10in
  - WIF-5x7in

Specifications
- Haze: 88±8%
- Thickness: 180±8μm
- Basis weight: 245±8g/m²
- Transmission Density: 1.4D

Compatible
- Epson, Canon, HP, CLEAR
Ink

**CLEAR Specified Ink**

**Black Ink**
- C(2%), M(3%), Y(4%), BK(1%), BK(1%)
- 70mL/bottle, 5 bottles/set
- CR, DR, CT and MRI

**Color Ink**
- C, M, Y, BK, BK
- 70mL/bottle, 5 bottles/set
- B ultrasound, Endoscope, PET-CT, PET-MR, CT 3D reconstruction, etc.

**Compatible Printer**
- Type E for Epson (L1300, L310, L130, L313)
- Type C for Canon (G1000, G1010, G1080)

**Ink Consumption (1 set of ink)**
- RIF-8×16cm: About 750 Sheets for DR
- RIF-13×17cm: About 270 Sheets for MRI

Software

**CLEAR Specified Software**

CLEAR DICOM software is used for primary processing and preservation of medical images in DICOM format. CLEAR provide the DICOM software to clients. It is mainly used in inkjet film printer to print CT, MRI, DR, CR, Ultrasound, PET-CT, etc. and supports DICOM images without compression.

**DICOM Viewer Run**
- Windows XP, Windows Vista, Windows 7, Windows 8, Windows 10
- Available for x86 and x64 platforms
Medical Film Printer

Medical film printer, which sends image datum in Dicom format via network and then forms images by the thermal imaging technology. It can perfectly meet the needs of CT, MRI, DR and CR.

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Medical film printer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>369-8</td>
</tr>
<tr>
<td>Application Fields</td>
<td>X-ray, CT, MRI, etc.</td>
</tr>
<tr>
<td>Spatial Resolution</td>
<td>320 dpi (12.6 pixels/mm)</td>
</tr>
<tr>
<td>Media Sizes</td>
<td>8x10in, 10x12in, 11x14in, 14x17in</td>
</tr>
<tr>
<td>Media</td>
<td>Thermal film</td>
</tr>
<tr>
<td>Media Inputs</td>
<td>2 supply cassettes, 100 sheets each</td>
</tr>
<tr>
<td>Printing Resolution</td>
<td>14bit printing</td>
</tr>
<tr>
<td>Throughput</td>
<td>8x10in: 130 sheets/hour (28 sec. per sheet)</td>
</tr>
<tr>
<td>Access time first sheet: 77 sec.</td>
<td>(14x17in-12-bits)</td>
</tr>
<tr>
<td>Dmax</td>
<td>≥ 3.0 D</td>
</tr>
<tr>
<td>Archival</td>
<td>&gt; 20 years under ANSI extended-term storage conditions</td>
</tr>
<tr>
<td>Media Supply</td>
<td>All films are pre-packaged and factory sealed</td>
</tr>
<tr>
<td>Image Formats</td>
<td>Standard: DICOM, TIFF, GIF, PCX, BMP, PGM, PNG, XWD, JPEG, SGII(RGB), Sun Raster, Targa</td>
</tr>
<tr>
<td>Image Quality</td>
<td>Manual calibration</td>
</tr>
<tr>
<td>Image Control</td>
<td>Gamma, Contrast, Polarity, Rotation, Scaling, Antialiasing</td>
</tr>
<tr>
<td>Sheet Control</td>
<td>Density adjustment (Dmax), look-up tables (LUT), image warnings, captions, sheet coverage, border fill, crop anchor</td>
</tr>
<tr>
<td>Sheet Formatting</td>
<td>1:1-1:8; Variable multi-formatting (VMF™), fixed multi-formatting (FMF™)</td>
</tr>
<tr>
<td>Control Panel</td>
<td>Large, backlit LCD display, status lights include online, alert, fault, active power and menu navigation buttons</td>
</tr>
<tr>
<td>Processor</td>
<td>Intel</td>
</tr>
<tr>
<td>Removable Storage</td>
<td>USB for software upgrades</td>
</tr>
<tr>
<td>Network Protocols</td>
<td>Standard: 24 DICOM connections, FTP, LPR</td>
</tr>
<tr>
<td></td>
<td>Optional: Windows network printing</td>
</tr>
<tr>
<td>Time to Operate</td>
<td>5 minutes (ready to print from &quot;off&quot;)</td>
</tr>
<tr>
<td>Power</td>
<td>Universal Input: 100-120/230VAC~50/60Hz, 450W printing, 45W idle</td>
</tr>
<tr>
<td>Noise</td>
<td>Printing: &lt;60db</td>
</tr>
<tr>
<td></td>
<td>Idle: &lt;50 db</td>
</tr>
<tr>
<td>Storage Environment</td>
<td>Temperature: -22°C-50°C</td>
</tr>
<tr>
<td></td>
<td>Humidity: 30%-80% (non-condensing)</td>
</tr>
<tr>
<td>Operating Environment</td>
<td>Temperature: 15°C-30°C</td>
</tr>
<tr>
<td></td>
<td>Humidity: 35%-75% (non-condensing)</td>
</tr>
<tr>
<td>Weight</td>
<td>90Kg</td>
</tr>
<tr>
<td>Engine Dimensions</td>
<td>728 mm (L) × 715 mm (W) × 536mm (H)</td>
</tr>
</tbody>
</table>
Medical Film Printer

Medical film printer, which sends image datum in Dicom format via network and then forms images by the thermal imaging technology. It can perfectly meet the needs of CT, MRI, X-ray and other imaging application.

Product Name
- Medical film printer

Type
- 369-1
- 369-2

Application Fields
- X-ray, CT, MRI, etc

Spatial Resolution
- 369-1: 320dpi
- 369-2: 508dpi

Media Sizes
- 8×10in, 10×12in, 11×14in, 14×17in

Media
- Thermal film

Media Inputs
- 2 supply cassettes, 100 sheets each

Print Technology
- Direct thermal(dry, daylight safe operation)

Media Supply
- All media is pre-packaged and factory sealed

Throughput
- 14×17in: About 60 sheets/hour
- 8×10in: About 85 sheets/hour

Gray-scale Contrast Resolution
- 14bit(16, 384)

Interfaces
- 10/100 Base-T Ethernet [RJ-45]

Network Protocols
- DICOM connection

Image Formats
- DICOM

Image Control
- Gamma, Contrast, Polarity, Scaling

Control Panel
- Backlit LCD display, status lights include online, alert and fault

Processor
- Intel

Memory
- 4GB

Hard Disk
- 500GB

Power
- 100V-240V~50/60Hz, 600Wprinting, 75W

Weight
- 45Kg

Engine Dimensions
- 730mm(L) × 518mm(W) × 415mm(H)

Operating Temperature
- 10°C-35°C

Operating Humidity
- 35%-75%(non-condensing)

Optimal Operating Temperature
- 22.2°C

Storage Humidity
- 30%-80%(non-condensing)

Storage Temperature
- -22°C-50°C
Medical Film Printer

Medical inkjet film printer, which receives image datum in Dicom format via CLEAR software, and then output images. With CLEAR specified ink, it can perfectly meet the needs of CR, DR imaging application, and even CT, MRI and other imaging application.

**Product Name**
- Medical film printer

**Type**
- Epson: L1300, L310, L130, L313
- Canon: G1000, G1010, G1080

**Application Fields**
- With black ink: CR, DR, CT, MRI, etc.
- With color ink: Ultrasound, Endoscope, PET-CT, PET-MR, CT 3D reconstruction, etc.

**Spatial Resolution**
- 9600x2400dpi

**Media Sizes**
- Epson L1300
  - 8x10in, A4, 10x12in, 11x14in, 14x14in, A3, 13x17in
- Epson L310, L130, L313
  - 8x10in, A4
- Canon G1000, G1010, G1080
  - 8x10in, A4

**Media**
- Medical dry film (Black Ink)
- Medical color film (Color Ink)

**Film Supply**
- By sheet

**Throughput**
- 8x10in: 25 sec per sheet at economic mode

**Ink**
- Black Ink: C(24), M(37), Y(47), BK(17), 70mL/bottle
- Color Ink: C, M, Y, BK, BK, 70mL/bottle

**Film Supply**
- One supply cassettes containing 50 sheets

**Interfaces**
- USB Port: Hi-Speed USB
- Direct Printing Port: Pict Bridge

**Operating Environment**
- Temperature: 5°C-35°C
- Humidity: 35%-75%(non-condensing)

**Power**
- AC 100-240V~50/60Hz

**Heat Emission**
- Printing: About 20W
- Idle: About 1.3W
- Power off: About 0.5W

**Operating System**
- Windows XP, Vista, 7, 8, 10

**Processor**
- 1GHz

**Explorer**
- Internet Explorer 7 or a update version

**Dimensions**
- 705mm(L) x 322mm(W) x 215mm(H)

**Weight**
- 12.2Kg (excluding ink)
Medical Film Printer

Ultrasound medical film printer (inkjet), using the specified ink provided by CLEAR, prints the matched medical film like ultrasound and PET-CT, then cut automatically. The quality of medical color film meets the medical diagnostic requirements in all kinds of hospitals.

- **Product Name**
  - Medical film printer
- **Type**
  - 361-4
- **Application Fields**
  - B-ultrasound
- **Spatial Resolution**
  - 9600×2400dpi
- **Media Sizes**
  - A4, A6
- **Media**
  - Rolling medical color film
- **Film Supply**
  - A6: 375sheets/roll
  - A4: 125sheets/roll
- **Interfaces**
  - BNC×1, USB-B×1, HDMI, USB-A (2.0)×2,
    REMOTE×1, RJ-45×1
- **Maximum Width**
  - A4
- **Power**
  - AC 100-240V~50/60Hz
- **Operating System**
  - Windows 7 (32bit)
- **CPU**
  - Intel j1900 2.0 GHz, 2G
- **Hard Disk**
  - 64G

- **Media Outputs**
  - Automatically cut based on the film size by roll printing
- **Line Accuracy**
  - ±0.1%
- **Ink Supply**
  - Continuous ink supply system
- **Nozzle Number**
  - 15,360 nozzles
- **Heat Emission**
  - Printing: 1,400W
  - Idle: 100W
- **Noise**
  - Printing: <52 db
  - Idle: <35 db
- **Operating Environment**
  - Temperature: 10℃-35℃
  - Humidity: 35%-75%(non-condensing)
- **Storage Environment**
  - Temperature: 5℃-50℃
  - Humidity: 30%-80%(non-condensing)
- **Engine Dimensions**
  - 450mm(L)×355mm(W)×297mm(H)
- **Weight**
  - About 15Kg (excluding ink)
Process Optimization

Before implementation

Complicated process and inefficiency
The more workers, the more cost
Long wait for patients wastes hospital’s special resources
Insufficient protection for patient privacy
Discomforting manage-ment status of hospitals’ printers and consumables
Frequent maintenance for hospitals

At present, patients often run to the different departments in the hospitals for examinations and will not be able to consult with the dieticians until the report is available. That patients are required to wait each test for some time being different in the different departments causes the ones to come and go between departments for many times and go to the hospital frequently to prolong the ones’ stay in the hospital.

Manually checking film and reports means a lot of repetitive work, and wastes hospital human resources. For example, claims, distribution and maintenance in each department’s printing and consumables, etc.

The patients’ long stay in the hospital can cause the occupation of all kinds of medical resources, such as parking spaces, elevators, maintenance desks and report distribution windows, etc.

At present, the various reports of ultrasound, endoscopy, etc., which would be checked and collected by the patients, are dispatched in batches. It is hard for the patients to search for their reports, meanwhile the reports will be lost easily. Private medical examination records cannot be effectively protected especially due to checking the reports in public. With the improvement of civilization and the gradual awakening of the consciousness of individual rights protection, the demand for improving the quality of service from hospitals and protection of personal privacy are becoming more and more urgent.

In the hospital printers and consumables must firstly undergo application, approval, bidding, warehousing, delivery, distribution and accounting before procurement, therefore it increases the hospital management cost because of the complicated process.

All the departments in the hospital are equipped with printers. Because of the large number of printers, different types and brands, it becomes time-consuming and hard to perform regular maintenance checks and procurement of materials. The printer troubleshooting is a relatively lower end and the more continuous operation and maintenance problem than the system problem, but it needs quite a lot of manpower in the information department of hospital.
Process Optimization

After implementation

Voluntary
Patients are reminded in four ways and then go to the one-stop self-service machine to get their own medical reports with a card.

Integrated
Patients could get all examination reports and films from any Chan’s one-stop self-service kiosk by swiping a card.

Self-reliant
The self-service system includes on-demand and self-service printing to reduce human resources with its one-stop self-service and patients’ stay in the hospital.

Accurate
A accuracy rate is 100% by system-based identification. As a result, it reduces risk of medical treatments, improves patients’ medical experience and effectively reduces the occurrence of conflict between doctors and patients.

"Internet+" Sample

Judging Medical is actively implementing an innovative medical service mode of online and offline integration based on “Internet+” has carried out some localized medical projects in Zhanjiang city, Linyang city, Nanyang city, etc. in China to promote the vertical mobility of the high-class medical resources.
Multi-function Self-service Printer

SDP-2A will rapidly provide users with complete diagnostic reports printed and radiology films printed, improve the self-service reception capacity of hospitals, and relieve their pressure in the aspect of diagnostic reports printed, radiology films printed, information consultation with medical workers, etc.

Product Name
- Multi-function Self-service Printer

Type
- SDP-2A

Universal Input
- AC100V-240V ~50/60Hz

Heat Emission
- Printing: 400W
- Idle: 100W

Noise
- Printing: <52db
- Idle: <35db

Environment
- Temperature: 15℃-40℃
- Humidity: 10%-80% (non-condensing)

Engine Dimensions
- 900mm(L)×846mm(W)×1663mm(H)
  (excluding the advertising screen)

Weight
- 190Kg (excluding ink)

Timer
- Regularly cut off the machine power

Parameter of PC Module
- Mainboard: ES-8160U
- CPU: Intel dual-core 2.8GHz
- Memory: 4G
- Hard Disk: 500GB
- Operating System: Windows 7
- Specification of Monitor: 21.5-inch LCD-touch screen
- Network Interface: RJ-45 network interface
- Data Interface: USB2.0×2

Parameter of Report Printer
- Type of Printer: Laserprinter
- Printing Resolution: 600(horizontal)×600 (vertical)dpi
- Maximum Printing Number: 5,000 sheets
- Paper Supply: Cassette feed
- Paper Sizes: A4, A5, B5
- Maximum Capacity of Paper Feeding Cassette: 250 sheets

Parameter of Film Printer
- Type of Printer: Inkjet
- Printing Resolution: 2400(horizontal)×1200 (vertical)dpi
- Type of Ink: C/M/Y/BK/MBK
- Capacity of Ink Box: 4,000mL×5
- Ink Supply: Continuous ink supply system
- Film Supply: Roll film
- Film Sizes: 8×10in, 10×12in, 11×14in, 14×14in, 14×17in, 14×51in

Other Customized Configuration
- Infrared Scanner Gun: Support a wide range of specifications for one-dimensional and two-dimensional barcode identification
- Magnetic Card Reader: Bi-directional swiping; support ISO 7811, AAMVA, and CA DMV standard card
- Suction Card Reader: Capable of reading a magnetic card, a integrated Circuit card and a radio-frequency Card, which are subject to some related standard
- Inductive Card Reader: Support various Mifare cards complying with the standard of Type A of ISO/14443
- Personal ID Reader: Support the second-generation resident ID card
Multi-function Self-service Printer

SDP-2C will rapidly provide users with complete diagnostic reports printed and radiology films printed, improve the self-service reception capacity of hospitals, and relieve their pressure in the aspect of diagnostic reports printed, radiology films printed, information consultation with medical workers, etc.

Product Name
- Multi-function Self-service Printer

Type
- SDP-2C

Universal Input
- AC 100V-240V(50Hz)

Heat Emission
- Printing: 1,500W
- Idle: 100W

CPU
- Intel dual-core 2.8 GHz

Memory
- 4G

Hard Disk
- 500GB

Specification of Monitor
- 21.5-inch LCD-touch screen
- Resolution of 1,920 x 1,080 pixels

Engine Dimensions
- 850mm(L) x 612mm(W) x 1,763mm(H)

Environment
- Temperature: 15°C-40°C
- Humidity: 10%-80% (non-condensing)

Other Customized Configuration
- Report printed: Laserprinter (Maxiumm resolution is 600x600 pixels)
- Thermal Filmprinted Thermal printer
  (Maximum resolution:≥508dpi)
- Infrared Scanner Gun: Support a wide range of specifications for one-dimensional and two-dimensional barcode identification
- IC Card Reader: Support all of the typical memory card and logical encryption card
- Magnetic Card Reader: Bi-directional swiping; support ISO 7811, AAMVA and CA DMV standard card
- Inductive Card Reader: Support various Mifare cards complying with the standard of Type A of ISO14443
- Personal ID Reader: Support the second-generation resident ID card
- Network Interface: RJ-45 network interface
- Data Interface: USB2.0×2