IEMAI®

Immediate External Fixator

3D Printing Solution

- **Why** we need ?
- **Scan** within 5 minutes
- **Design** within 5 minutes
- **Printing** within 15 minutes
- **Post processing** within 10 minutes

A. Why we need ?

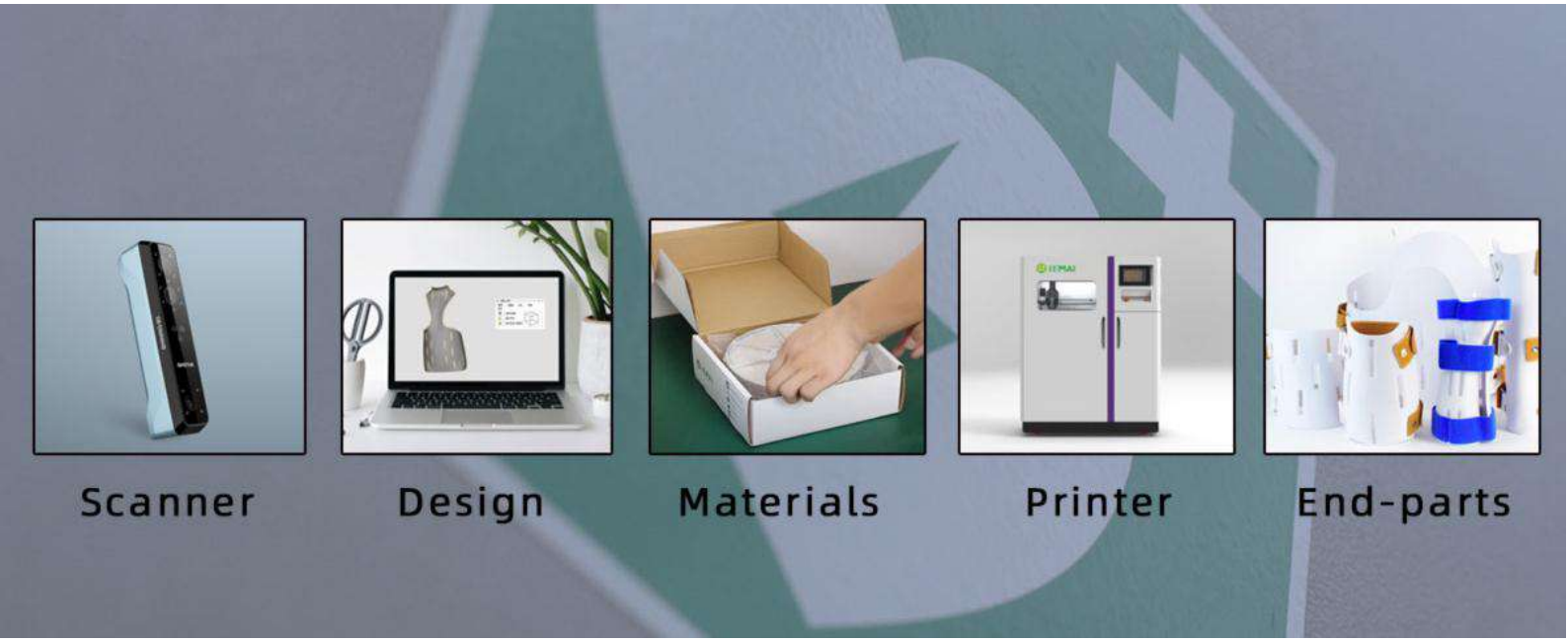
Plaster is typically used in conventional orthopedic external fixation to assist with reset, but the patient could not remove and wash it during the treatment period and the plaster's effectiveness is too low. Therefore, the technology of 3D printing external fixation, which can easily help patients reset accurately, reduce patients' pain and promote fracture healing, has been applied more and more in recent years.

The obvious drawbacks of general 3D printed external fixation:

1.Ordinary 3D printers finishing time add up to more than 5 yo 7 hours.

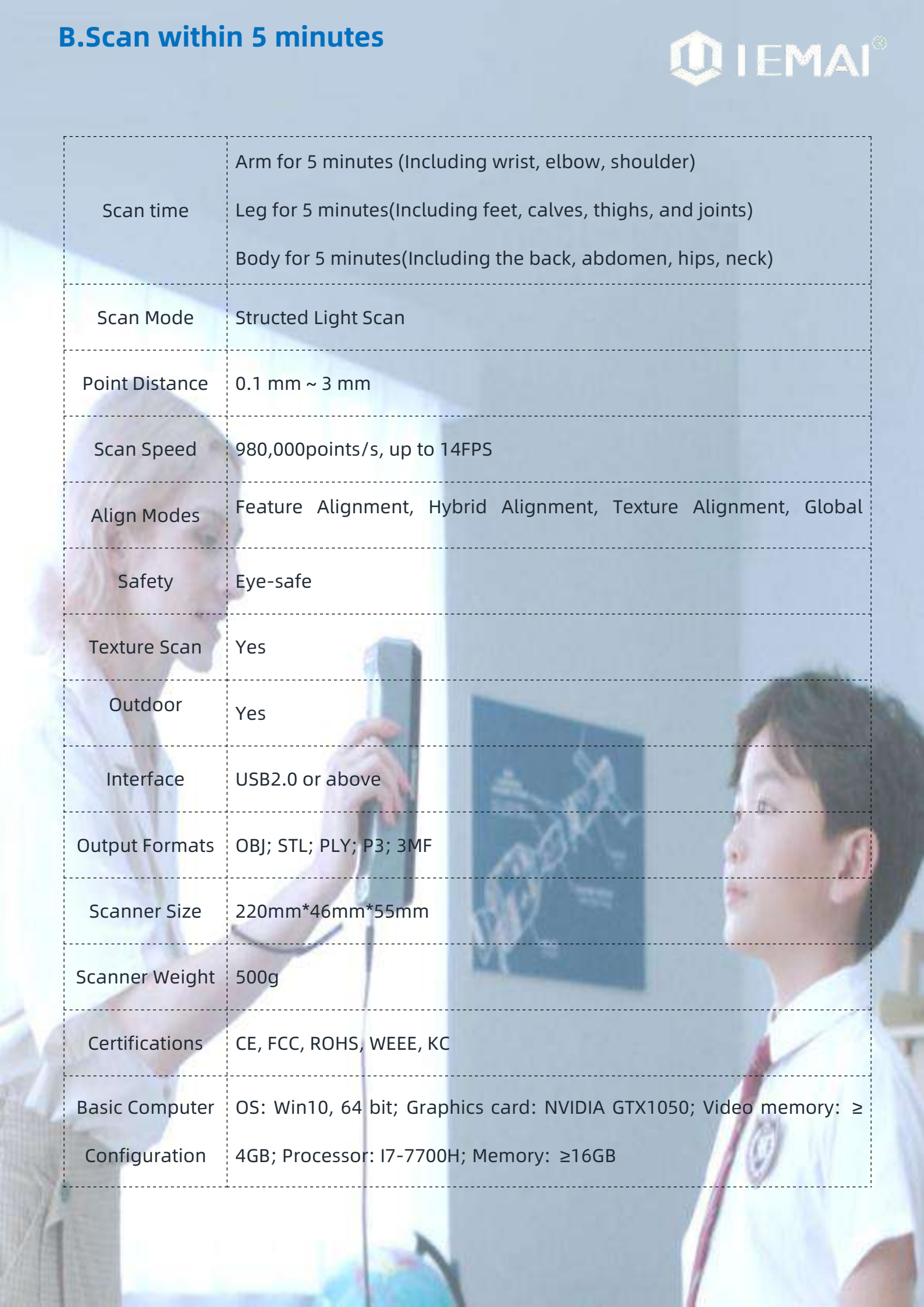
2.doctors lack the necessary professional 3d scan/design/printing expertise.

That's why we need a simple, easy-to-use, and Immediate External Fixator 3D printing solution.



B.Scan within 5 minutes

Scan time	Arm for 5 minutes (Including wrist, elbow, shoulder) Leg for 5 minutes(Including feet, calves, thighs, and joints) Body for 5 minutes(Including the back, abdomen, hips, neck)
Scan Mode	Structed Light Scan
Point Distance	0.1 mm ~ 3 mm
Scan Speed	980,000points/s, up to 14FPS
Align Modes	Feature Alignment, Hybrid Alignment, Texture Alignment, Global
Safety	Eye-safe
Texture Scan	Yes
Outdoor	Yes
Interface	USB2.0 or above
Output Formats	OBJ; STL; PLY; P3; 3MF
Scanner Size	220mm*46mm*55mm
Scanner Weight	500g
Certifications	CE, FCC, ROHS, WEEE, KC
Basic Computer Configuration	OS: Win10, 64 bit; Graphics card: NVIDIA GTX1050; Video memory: ≥ 4GB; Processor: I7-7700H; Memory: ≥16GB

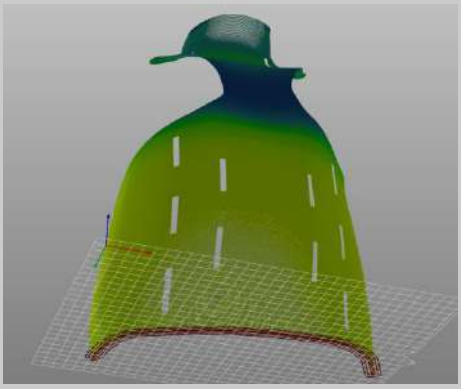
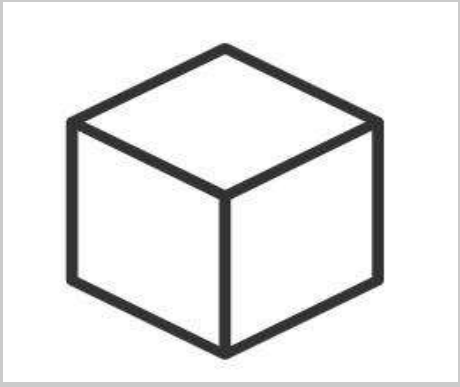
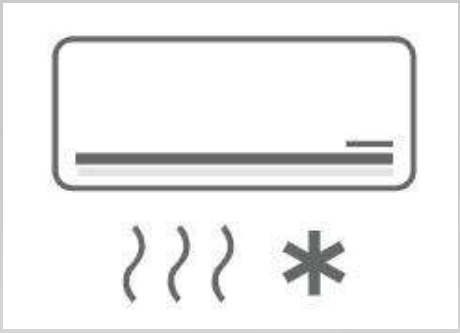


C.Design within 5 minutes

4 Steps to Quickly Complete Design

Cutting -> Set Thickness -> Punching -> Model Repair

D.Printing within 15 minutes

Unique single wall printing algorithm	High throughput High Speed	Large printing size 450*300*700mm
		
Unique cooling system 16C° Chamber	Antibacterial & Skin friendly Degradable & low cost	Scalability to orthopedic Print more materials
		

E.Printer Technical Data

Printing Size	450*300*700mm
Machine Size	1500*702*1740mm
Nozzle Diameter	2.0 mm
Thickness	0.8-1.2mm
Printing Temp	Up to 275℃
Bed Temp	Up to 50℃
Chamber Temp	Down to 16℃(closed cooling chamber technology)
Filament Box Temp	Up to 45℃
Materials	2.65mm skin friendly MPLA
Interface	Network port, USB 2.0 drive
File format	STL、OBJ、3MF、Gcode
Patent functions	Single wall printing
Motion control chip	STM32 ARM Cortex M4 168 MHz
Logic control chip	H3 ARM Cortex-A7 Harpertown
Display control chip	Mali400MP2 GPU @600MHz Supports
Flash memory	1GB
Memory	16GB
Features	LAN cluster control, printing log feedback, printing automatic door closing, condensation chamber, heating and moisture-proof of filament box, Filament Absent Warning, one click loading and unloading, Auto-Shut Down System, Power Failure Recovery,

F.Post processing within 10 minutes

3 Steps to Quickly Complete Post Processing

Grinding edges -> Fixed Velcro -> Fix to Patient

We can provide post-processing equipment and training

Immediate External Fixator 3D Printing Solution

Allen Jiang

allen@iemai3d.com

www.iemai3d.com

+86-13580733807