



& HEALTHCARE

Imaging solutions for healthcare and processes



Who is

CRESTRON



CONNECTING HEALTHCARE & TECHNOLOGY

Crestron is the world's leading manufacturer of advanced control and automation systems, reinventing the way people live and work through innovative technology. Crestron streamlines technology for corporate boardrooms, conference rooms, hospitals, classrooms, auditoriums, and homes by offering integrated solutions to control audio, video, computer, IP and environmental systems.

Crestron's leadership stems from its dedicated people who are committed to providing the best products, programmes and services in the industry. This culmination of loyalty, devotion and innovation is what our customers refer to as The Crestron Experience.



>> AZ Monica Antwerp, integration by  smith&nephew

When Speed, accuracy and efficiency are of **VITAL IMPORTANCE**

CRESTRON INTEGRATION IN MEDICAL ENVIRONMENT

Crestron's technology has been successfully applied in environments where reliability is absolutely vital, including operating rooms, recovery rooms and dental surgeries. Places where every second counts and every action has an impact on a human life. The technology used is subjected to the most stringent criteria. Crestron equipment has passed these tests with flying colours and is already being utilised in many medical environments. The accuracy of the Crestron technology, meticulously tuned, offers benefits across medical applications.

CRESTRON INTEGRATION IN MEDICAL ENVIRONMENT

We live in an ever changing, evolving world. Progress is being made every single day, not least in the healthcare sector. This provides new solutions for patients but also presents new challenges for medical practitioners.

Crestron has met this challenge by developing a completely integrated operating system for all hardware equipment. Moreover, individual presets can be programmed, simplifying the search for each particular setting – all by using one simple interface.





CRESTRON REFERENCES

- >> AZ Monica Antwerp
- >> St-Blazius Dendermonde
- >> Arthro Hospital Stockholm
- >> UMAS Kvinnokliniken Malmö
- >> Hôpital Universitaire de Strasbourg
- >> IM2S de Monaco
- >> Fondation Transplantation de Saint-Apollinaire
- >> Hôpital de Besançon
- >> Hôpital de Nancy
- >> SIHCUS-CMCO de Schiltigheim



>> Urology Center, Guy's Hospital in London



CRESTRON SOLUTIONS

Crestron technology provides the health sector with solutions covering:
 Video distribution, Audio distribution, Database management, Mechanical/motor control,
 Central management systems, Light control, Climate control.



>> AZ Monica Antwerp, integration by  smith&nephew

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Total audiovisual controlling tools:

IMAGE & AUDIO PROCESSING

IMAGE DISTRIBUTION

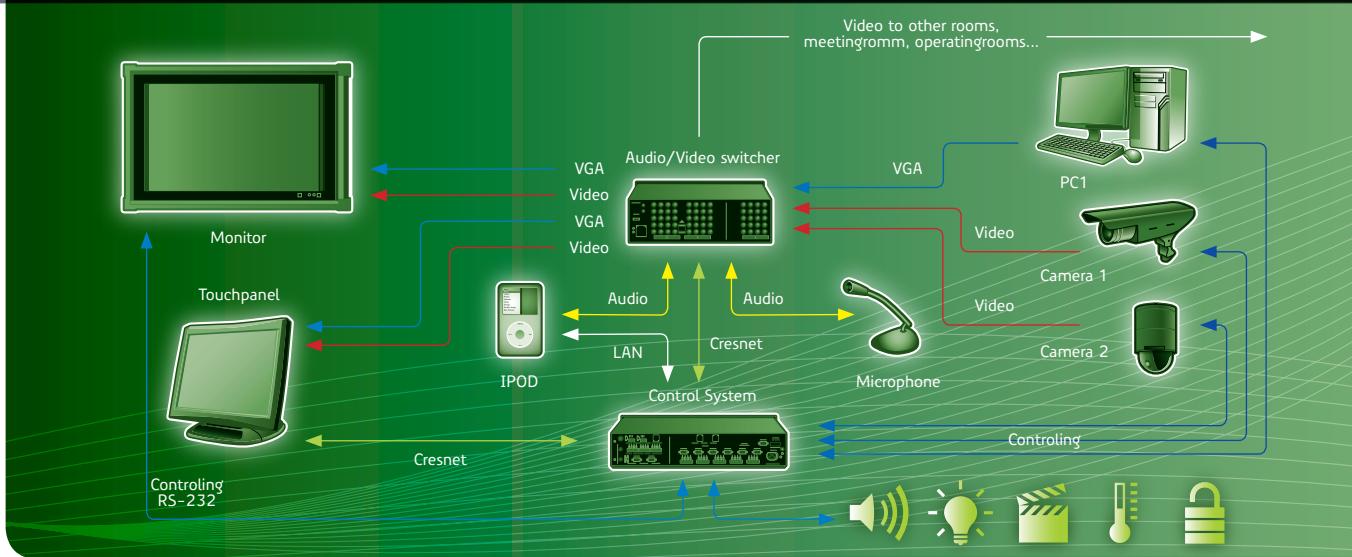
Images from different sources (camera, video or computer) can be collected and shown independently on multivision devices. These monitor screens can be installed onsite – inside a doctor's practice, an operating theatre, waiting rooms, hospitals – but they can also be shown in any other remote location such as another building or institution.

The intuitive Crestron touch screen provides users with the opportunity to direct images to different display locations.

AUDIO DISTRIBUTION

Audio sources can be collected from a variety of sources, including from microphones, ipods and CDs. These can be heard in any room or building, at the simple push of a button and it is also possible to control the actual source device through the intuitive touch screen. Microphones can be connected and made audible in different rooms, making audio recordings possible by pushing a button on the same interface.





CRESTRON'S PRODUCTS

>> Crestron Touchpanel (TPS-6X)

Full control of all systems using an intuitive easy-to-use touchpanel



QuickMedia®

QuickMedia® transport technology streamlines presentation system design and simplifies installation by integrating 16 separate cables into a single CAT5-type wire. QuickMedia delivers the full-range of video including true HD; balanced and unbalanced, line and mic-level audio; and high-resolution computer signals – all over a single cable.

MediaManager

Crestron wideband matrix switchers are designed to provide flexible signal routing of high-res video and audio for the most demanding environments.

DigitalMedia™

Crestron DigitalMedia distributes uncompressed digital Audio and HD video signals over a choice of CAT5E/6-based copper wiring or a single multi-mode fiber cable.

DVPHD

The DVPHD-PRO is an advanced multi-window digital video processor and touchpanel interface. Ideal for videoconference rooms, lecture halls and training labs, command centers, operating rooms, ground and air traffic control, security and surveillance, public information, houses of worship, home theater,...



[2] A complete information system, **MONITORING** of people and places

Individuals or spaces can easily be monitored with cameras. When a patient makes a movement or produces a certain noise level, the camera automatically activates itself and this will show up on the Crestron touch screen. Many different images can be shown on just one screen. The touch screen can then be used to trigger actions, including alerting nursing staff and changing lighting settings lighting.

The monitored information can be simultaneously stored and reviewed on the same touch screen, on a monitor and a projector. Messages requesting information or to order staff action can be sent via email, telephone or SMS to specific recipients.



CRESTRON RoomView[®] express

>> Increase efficiency!

Via a single platform solution users can monitor, manage, troubleshoot and control every device and every room, throughout a facility, hospital or across the globe.



CENTRAL MANAGEMENT SYSTEMS

With Crestron Roomview, it is possible to centrally control the operating room. The package integrates the agenda, the hospital admittance planner, equipment needs, necessary equipment, the personnel planner and sterilization. This allows for an optimal preparation, benefitting both patients and surgeons.

INFORMATION MANAGEMENT

Operation shot in the USA



Projection seen
in EUROPE





[3] Integrated solutions to advance the quality of **KNOWLEDGE EXCHANGES**

Telemedical is the use of information and communication technology to deliver health services, expertise and information over distance.

High-tech diagnostic equipment, together with multimedia, scanning, and videoconferencing capabilities, allow researchers and health care providers to share data, images, expertise, and diagnostic procedures.

Telemedical is changing the way we think about health and how we conduct healthcare around the world. This unique global tool has the capability to cross all existing geographical, temporal, political, social and cultural barriers within the health sector.

Crestron technology is already been used by users who demand high end solutions, high quality and reliability, including universities, hospitals, governments and international organisations.





CRESTRON REFERENCES

>> University of Brussels:
Crestron technology
integrated in lecture Aula.





[4] Total control of the environment through **ONE EASY-TO-USE** system

ENVIRONMENTAL FUNCTIONS

Environmental functions can be integrated into the touch panel, including lighting control, heating, air-conditioning, and security. All of these can be simply set by individuals, but an automated solution is also on offer. For example, if a room is too dimly lit light levels can be adjusted by individuals using the touch screen or by automatic sensors.

This level of control means it is possible to manipulate environmental functions centrally, or from a variety of locations, but also improves energy efficiency by avoiding unnecessary energy waste.

By using management software, a specific room can be automatically prepared at a chosen time of a particular day. Lights can set at a desired level, curtains can be drawn and the room temperature can be set.

Total control can be exercised through the internet: by visiting a website users can control all the different functions of a particular room, space or building – from any remote location worldwide.



>> Total integration of Crestron technology includes:
Audio, Lighting, Visual,
Climate and Security.



AUDIO

Control all audio in one room, or one building, and beyond. Includes applications for educational purposes but also compatible with iPod and other hardware.



LIGHTING

Superior lighting control for every demanding environment, with an emphasis upon energy efficiency. Customised light settings for multiple-use areas.



VISUAL

High definition image control, suitable for every demanding environment.



CLIMATE

Select and maintain the correct ideal temperature and humidity levels.
Easily to monitor with pre-programmable functions offering extensive energy efficiency.



SECURITY

Quick and easy access to CCTV cameras, and control over security systems.



>> AZ Monica Antwerp, integration by  smith&nephew

Case study of Crestron integration in the **MEDICAL ENVIRONMENT**

The benefits and multiple features of a Crestron integrated solution in the health care sector can be best understood through a case study. Since Crestron provides custom solutions based on the individual needs of each customer, the following case is just one example of Crestron's success in the sector.

CRESTRON ACTUAL HEALTH SECTOR CASE-STUDY

Based on a brief covering three operating rooms, Crestron created a system that completely fulfilled the needs set out by the customer.

Two displays with PIP were placed on mechanical arms around the patient. A plasma screen was mounted against the wall for far-end view.

A touch screen was prepared with a custom-made layout for the hospital. By using a preview video window the user can preview the video image before sending it to a selected screen. The built in annotation function was implemented so that the user could write over a video or camera image.



>> Crestron managed to combine all operating rooms techniques into one easy-to use system thanks to a very simple intuitive touch screen. This solution not only provides simple control of modern technical products but is also a powerful tool for education and direct support.



Via the screen the user could select and control an audio source. Lighting and operating table control is also controlled the graphical user interface.

Through the central audio/video switcher all operating rooms could select and view any camera or computer that was located in any of the three operating rooms.

The centrally located meeting room in the hospital can receive video and audio signals via Crestron's Quickmedia transport products. With this product users send video, audio, RGBHV and microphone signals over 150 meters (via a CAT5E cable) to another location.

In the meeting room a projector and microphone were installed to follow an operation in real time and to provide comment if needed.

CONCLUSION

Crestron has proven expertise in many sectors, and now the healthcare sector can benefit from a huge range of state-of-the-art products. The Crestron technology used in the health care sector is efficient and can perform in environments where demands are high.

This facilitates processes and helps create extra space for new equipment, offering benefits to users and patients.

Crestron itself doesn't save lives, but it does make it easier for health care professionals to.



CRESTRON INTERNATIONAL

Oude Keerbergsebaan 2
2820 Rijmenam
Belgium
F +32 (0) 15 50 99 50
info@crestron.eu
www.crestron.eu

CRESTRON BENELUX

Oude Keerbergsebaan 2
2820 Rijmenam
Belgium
T +32 (0) 15 50 40 70
benelux@crestron.eu

CRESTRON UK

Head office
Munro House, Portsmouth Road
Cobham, Surrey,
KT11 1TF
United Kingdom
T +44 (0) 845 873 87 87
uk@crestron.eu

Office: North (Doncaster)

T +44 (0) 130 280 22 60

Office: Scotland

T +44 (0) 1506 497 888

CRESTRON IRELAND

Office 104
Premier Busines Center,
Unit 3013, lake Drive,
Citywest Business Campus
Dublin 24
Ireland
T +353 (0) 1 4693 701
ireland@crestron.eu

CRESTRON GERMANY

Head office: South
Ringstrasse 1,
89081 Ulm-Lehr
Germany
T +49 (0) 731 96 28 10
germany@crestron.eu
austria@crestron.eu

Office: North (Hamburg)

T +49 (0) 4144 23 39 534

Office: West (Köln)

T +49 (0) 2065 70 29 71

Office: Middle (Kassel)

T +49 (0) 36071 9 04 64

Office: Berlin

T +49 (0) 30 34 35 85 66

Office: Hannover

T +49 (0) 5132 821 86 76

CRESTRON FRANCE

Head office
31 rue des Hautes Pâtures,
92000 Nanterre,
France
T +33 (0) 1 47 91 00 00
france@crestron.eu

Office: South (Avignon)

T +33 (0) 6 84 23 96 97

Office: West (Rennes)

T +33 (0) 6 63 69 09 11

Office: East (Strasbourg)

T +33 (0) 6 19 31 46 57

CRESTRON IBERICA

Head office
Polígono Industrial,
C/Francisco Moreno Lomeña,
7 Oficina 3,
29670 San Pedro de Alcántara
(Malaga)
Spain
T +34 (0) 952 927 868
spain@crestron.eu
portugal@crestron.eu

Office: Centre (Madrid)

T +34 (0) 91 741 84 15

Office: North-East (Barcelona)

T +34 (0) 660 501 636

Office: East (Mallorca)

T +34 (0) 971 73 81 26

CRESTRON ITALIA S.R.L.

Head office
Via Vicenza 2, ang. via Verona 16,
20063 Cernusco sul Naviglio
(Milano)
Italy
T +39 (0) 02 92 14 18 15
italia@crestron.eu

Office: South (Rome)

T +39 (0) 06 96 52 64 52

Office: North/East

T +39 (0) 335 683 21 85

Office: Centre

T +39 (0) 335 709 74 86

CRESTRON MIDDLE EAST

Head office: Dubai
Shatha tower, Office 1201,
Dubai Internet City,
P.O. Box 502494
Dubai
United Arab Emirates
T +971 (0) 4 369 27 11
middle-east@crestron.eu

Office: Saudi Arabia

T +966 (0) 50 279 46 65

CRESTRON RUSSIA

Kolodeznyi pereulok, 3,
Bld. 25, office 5309,
Moscow
Russia
T +7 (495) 72 455 27
russia@crestron.eu



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