

DJ Orthopedics

DJ Orthopedics (DJO) Incorporated, a leading global provider of high-quality orthopedic devices, re-enlisted CompView's expertise to update their education, training, research and development facility. As a leading edge innovator of rehabilitation, pain management and physical therapy, DJO's research and development and training relies heavily on audio visual technology. CompView was solicited to upgrade and re-purpose equipment in DJO's Clinical Education & Research Facility (CERF) Lab, CERF Training Room, executive board room and lobbies. Creative design and planning was required from the CompView design team, to facilitate and customize their unique environment.

CERF LAB

Virtually any open or arthroscopic orthopedic surgical procedure is recreated in the lab, making CERF an invaluable educational tool and resource. The lab is utilized by orthopedic surgeons from across the globe for surgical skills training and the development of new or innovative orthopedic surgical techniques.

Many of the surgical procedures performed in the lab require endoscopic techniques, which is a minimally invasive diagnostic medical procedure used to assess the interior surfaces of an organ or joint by inserting a tube into the body. The tube or scope camera provides an image for visual inspection and photography. In demonstrating procedures in the lab setting, the surgeons also require an additional external camera view to capture both the reconstructive products in use, as well as surgical techniques. The imagery produced by both cameras in the CERF Lab is routed to a display for viewing within the lab and a "live feed" to other recording devices, as well as the adjacent CERF Training Room.



Once installation started, the DJO surgical staff brought to CompView's attention the need for a telescoping arm that would house the new external HD Wolfvision camera. The existing ceiling mount for the camera had limitations in range of motion when performing procedures. The camera needed to slide vertically, as well as retract or slide back down in a greater range of motion, allowing for more height and maneuverability than the existing system.

The customer's budget restricted them from additional modifications or upgrades to the project, so CompView was tasked with finding a cost effective solution. CompView took this unique challenge to ICWUSA, a company that manufactures ergonomically designed, space-saving mounting brackets. Modifications were made to an existing dental based arm that would hold the camera and increase range of motion. The custom arm not only increased range of motion vertically, but also allowed for broader horizontal movement and more precise camera head pivot and tilt. "The doctors who use the lab recognized the functionality of the custom arm as a great benefit and use it frequently," stated David Cavazos, Telecommunications Engineer.

“CompView has been great at offering options and bringing innovative new solutions”

David Cavazos,
Telecommunications Engineer



In addition to the custom arm, CompView installed a 57” Samsung LCD display within the lab and programmed routing capabilities with a wireless Crestron control touch panel. While the surgeons remain in control of the camera and endoscope, the touch panel docking station is housed and controlled from a portable Middle Atlantic rack where staff route the imagery within the lab, to a Panasonic DVD recorder, or to the CERF Training Room. To support training, the surgeon is also equipped with a Shure lapel microphone for synchronized audio transmission to the adjacent CERF Training Room.

CERF TRAINING ROOM

Not only is the training room used as a direct link to the CERF Lab, it also facilitates instructor led training and audio conferencing. The room houses 9 adjustable student tables and 2-4 additional instructor tables to accommodate variable set-ups. For presentations and image transmission, CompView installed a ceiling mounted Epson XGA resolution projector and Draper electric screen, integrated audio teleconferencing system and an instructor podium with Crestron touch screen control. In support of the audio conferencing from the training room, CompView integrated a Revo Labs wireless microphone system and a wireless Shure Lavalier microphone. For receiving the audio feed, CompView strategically placed JBL ceiling recessed speakers to support the variable room layouts.

Revo Labs wireless microphones were recommended to support this multi-functional space to avoid challenges with wiring and cable interference. Control of the systems, as with the Lab, were programmed with a Crestron touch panel housed in the instructor podium. The room reservation rate has increased 30 percent since the system upgrade and proves to be an affective work space for continuing education.

EXECUTIVE BOARD ROOM

This space required more aesthetic attention to ensure the technology installed was transparent.

A Draper projector lift was installed to house an Epson XGA resolution projector, enhancing the room’s aesthetic appeal and versatility with the option to retract and hide the projector when not in use. In conjunction, a Draper electric, recessed screen provided the same discrete appeal and quick transition. The room is also equipped with Polycom video and audio conferencing and elegant Astatic table microphones nested into the semi-circular table to support the room acoustics.

Control of the equipment in the board room needed to be seamless and unobtrusive, so CompView opted to use a Crestron wireless touch panel with a wall mounted docking station.

HALLWAYS/LOBBY

Enhancement of DJO’s facility also included new methodology for company wide communications by incorporating digital signage. CompView installed 3 Samsung 460 DXN Magicpro LCD displays for managing and routing marketing and corporate information.

DJO held tight construction time lines, which required the CompView team to efficiently manage this project to ensure deadlines were met and down time was at a minimum. CompView was able to implement modifications and offer enhancements throughout the course of the project, in order to get their AV systems up and running. “CompView has been great at offering options and bringing innovative new solutions,” David Cavazos.



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