

AbleStudio is a digitally distance learning system designed for teachers and lecturers.

Serving as a comprehensive hybrid solution, this tool empowers instructors to seamlessly extend the entire classroom experience, including smartboard content, to homebound students in a secure and straightforward manner while simultaneously teaching in-person students.

When the teacher uses a projector or smart board to present to in-person students, AbleStudio™ allows them to effortlessly transmit live video feeds and displayed material directly through a PC or Pad.

This transmission is accessible to students, whether they are physically present in the classroom or participating remotely.

Through permissions granted by the instructor or administrator, remote students can actively participate in live classes. A wireless, ceiling-mounted PTZ camera offers a 360° horizontal and 180° vertical view, allowing students to engage fully. Additionally, homebound students can use OCR processing to extract text from displayed material.

In situations where the teacher addresses a single student remotely, the software enables the teacher to grant full control to the remote student over angles and equipment manipulation-

opportunities on the equipment already assembled in the classroom.

Educators utilize the system through popular distance learning platforms like Teams and Zoom, seamlessly integrating AbleStudio™ Access through an add-on or "overlay." This preserves the familiar functionalities of these platforms while incorporating the unique features of the AbleStudio system. Notably, these platforms are recognized for their simultaneous login capabilities and have established a reputation for privacy and security.

AbleStudio™ doubles as a high-magnification document camera for teachers, offering flexibility in connecting a small and mobile document camera or even using the teacher's mobile phone camera for document projection.

The hardware in the system is minimized to a minimum and makes the system suitable for movement between classrooms in the easiest possible way.

Ensuring the confidence of educational institutions and teachers, the system places a high premium on security and privacy.



Privacy and Security Measures.

In 2020, AbleCon AS carried out a preliminary project where, among other things, they conducted a market survey and a survey among leaders and teachers at primary level, upper secondary schools and higher education. The pilot project gave AbleCon AS a good overview of what measures should be implemented to develop a camera system so that distance learning is as vibrant, energetic and participatory as being present in the room.

All results showed that AbleStudio™ would become a welcome tool in the school sector. Among the areas highlighted through the survey was the importance of ensuring a high level of privacy and security.

We have therefore placed great emphasis on ensuring privacy and security for teachers, pupils and relatives. We have created a separate booklet describing all the areas that are secured through and around the use of AbleStudio™ Access. We will briefly mention some of the measures that are integrated into hardware and software.

Visible Indicators.

The AbleStudio device features a red light when active and a green light when a user is connected, ensuring transparency about system status.

User Control.

Users can turn off AbleStudio™ through the software, preventing unauthorized access and ensuring system security.

End-to-End Encryption.

The video stream between AbleStudio software and AbleStudio™ is end-to-end encrypted, safeguarding against external access.

Fixed Positions.

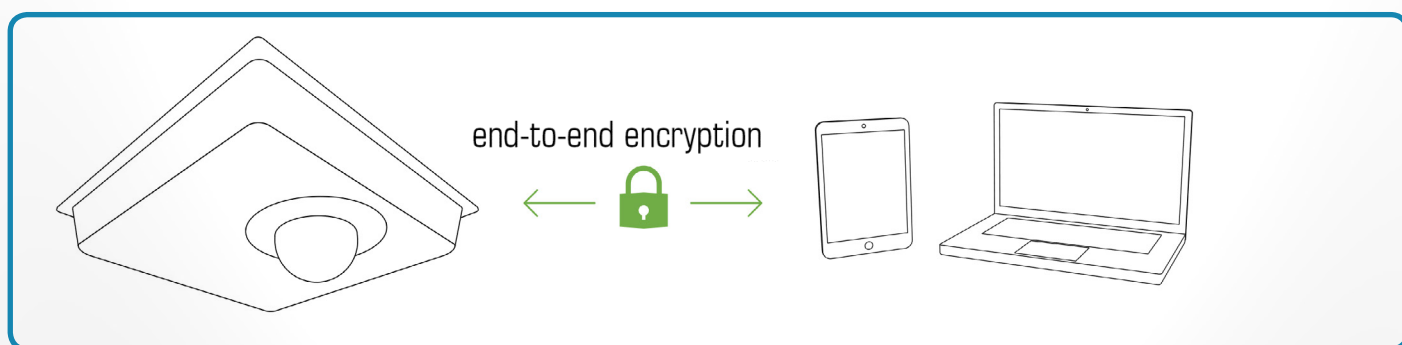
The system allows the storage of up to 9 fixed camera positions, zoom level and angles, providing security against unauthorized access outside designated areas. By tapping on the number-key where the position and zoom level are stored, the camera quickly moves to the saved position with the saved zoom level. This happens so quickly that it is virtually impossible to decipher the image along the way from one position to another. By using fixed positions, one cannot therefore obtain information other than that contained within the stored position.

Locked Positions.

AbleStudio™ can be locked to fixed positions/camera angles that are saved and approved by the instructor/administrator in advance. This makes it impossible to obtain image cutouts outside the designated areas.

Wired Communication

The option for wired communication through the power grid enhances security and prevents unauthorized access.



Single Device Connection.

AbleStudio™ can be configured to connect to only one device at a time via a fixed IP address, preventing multiple unauthorized connections.

Instructor/Administrator Control.

With the AbleStudio software/app, the instructor/administrator has granular control over permissions granted to remote users, managing video and audio streams and system control capabilities.

Password protection.

Before you are able to use software / app for AbleStudio™, you must activate the software with a code provided by Eyecast AS.

Password protected wireless network login.

To control the system through the wireless network, one must log in to an encrypted end-to-end network with the SSID and password.

Nothing stored.

AbleStudio™ is used in real time. The possibility of recording video stream is disabled by default, but can be enabled if desired. AbleStudio™ provide the opportunity for all homemakers to see the necessary positions in the classroom to participate in teaching and to some extent experience social life in class with picture and sound. The "Take photo" function is active by default. But can be disabled from the instructor/administrator.

Server selection and security.

AbleStudio™ software and hardware are tailored to commonly used and accepted systems in schools, leveraging existing platforms' server capacity and security levels (Teams and Zoom). We have developed the software so it coexist and compliment in a good way with these platforms. We see that many of these platforms deliver high quality when it comes to server, capacity and security.

Information leaflet.

To further alleviate concerns and enhance understanding, editable information letters for students, parents, and teachers are available for download on the Eyecast website. it may be desirable to hang a small poster in the classroom or distribute an information letter. Proposed documents can be downloaded from the following website:

www.eyecast.no/personvern.

