

CleverBoard Touch Lite.



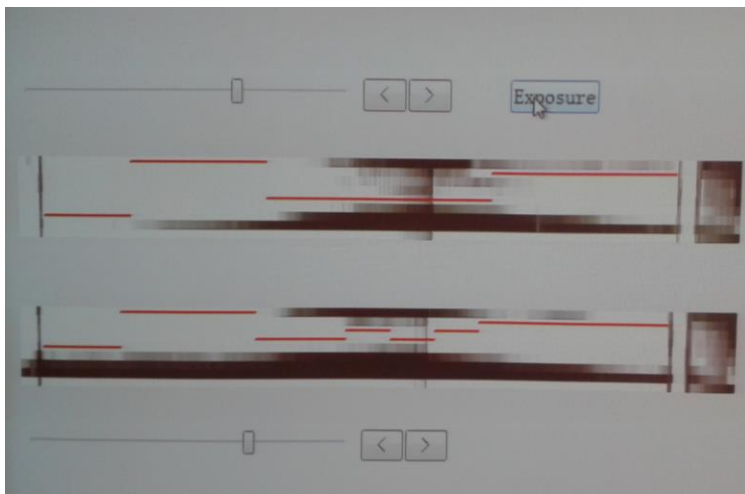
The Cleverboard Touch Lite is an interactive whiteboard which utilises optical technology. It has infrared emitters in the top left and right corner which produces a field of IR across the surface of the board. This is reflected off the reflective strips fitted on the inside edge of the frame along the bottom and the two sides. The IR is reflected back towards the top corners and is monitored by two cameras, one mounted in each top corner. As a finger is moved towards the surface of the board it 'breaks the beam', the point at which this happens is detected by each camera and the position is calculated. This is a fairly common type of interactive technology featured on many interactive products.

By utilising optical technology it is possible to operate the board with a finger or simple stylus. Also with use of a suitable computer operating system, dual touch can be achieved.

With this type of product it is important to mount the board as flat as possible on the wall. Any twist in the board will affect the alignment of the cameras and reflective strips and can compromise performance. Wall mount brackets are included with the Cleverboard Touch Lite.

The board operates as an HID device, meaning the board is plug and play. There is a calibration tool (software) which is used when the board is first installed and subsequently if a different screen resolution is used (or if recalibration is required at any time). Drivers do not have to be installed. It connects to a computer via USB.

The Calibration Tool software has two functions to be used when setting up the board. The first function to select is 'Levelling', this checks and adjusts the internal gain of the cameras. It is useful to use this stage to check that the camera modules are functioning correctly. During the levelling process a live view of the cameras detecting the IR from the emitters is shown in two windows. There should be a uniform area of white in both camera view windows, and a red line across the view. The red line does not need to be straight/aligned. If a camera view is all black this suggests a camera module is faulty. If the white area is not uniform on one camera it may suggest the board is twisted. Try moving the board slightly and watch to see the change on the camera view windows (the view refreshes every few seconds). This will show if the white area improves. The following photograph shows the levelling view on a working board.



The second function to use from the calibration tool software is the 'calibration' function. This displays a screen with crosses, simply touch and hold at the centre of each cross until it moves to the next. Continue this until calibration is complete. The board should be setup and calibrated at this point and the calibration tool can be closed.

The Cleverboard Touch Lite should now be setup and functioning.