

# Replacing the Wi+ camera module to improve sun light resistance.

## Requirements.

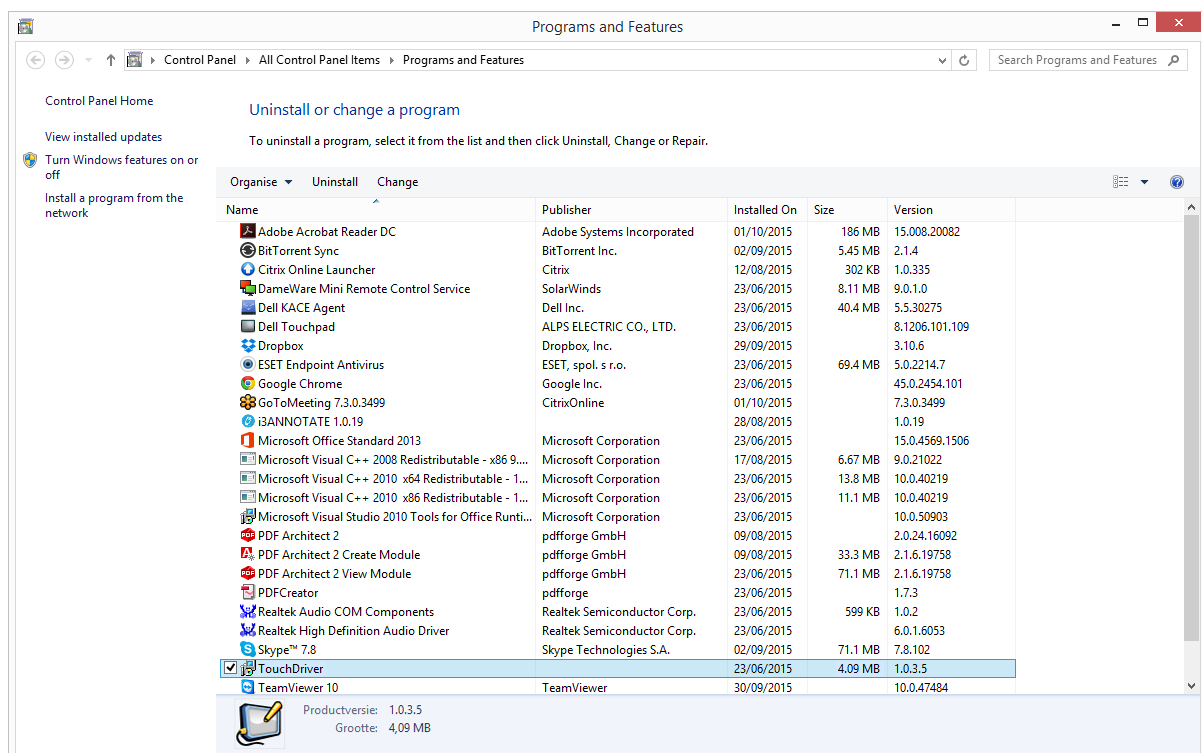
To improve the Wi+ sunlight resistance by replacing the camera module, you will need:

- Generation 2 Wi+ camera module
- Powered USB hub
- Touch Utility software
- Flat-head screwdriver (not included)
- Extension power cable (not included)



## Uninstall the previous Wi+ software.

The previous operating drivers are no longer compatible with the new generation camera. Uninstall TouchDriver of the previous model and restart the computer afterwards.



### Remove the old Wi+ module.

Open the locking switch to allow the camera module to be removed, and gently pull out the unit.



### Insert the new Wi+ module.

Mount the new camera module to the projector. Make sure the locking switch is opened, and be careful not to bend any of the 6 connection pins.



Close the locking switch to secure the camera module.

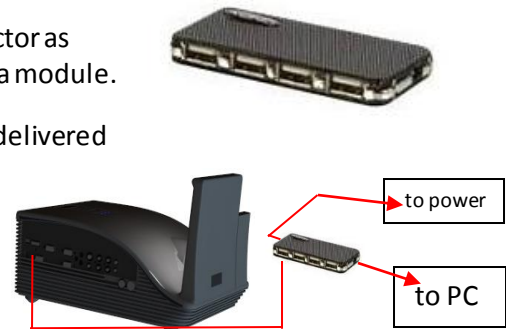
### Add a power source.

Because the new generation Wi+ module is a USB 2.0 device (compared to the previous generation USB 1.0 module), it is absolutely required that the new camera module receives 5 volt of power. USB cables can deliver this voltage, but long USB cables causes the voltage to drop quickly and provide an insufficient voltage.

Therefore, add the powered USB hub as close to the projector as possible, and it will supply the needed power to the camera module.



Remove the USB mini-B connector delivered with the projector and insert it into the mini-USB port of the USB hub. Add the short USB mini-B to USB-A cable between projector and USB hub.



Feed the power extension cable for the hub's power adapter through the projector mount, and connect it to the 5 volt power adapter of the USB hub.

Secure the powered USB hub and the power adapter to the top of the projector.

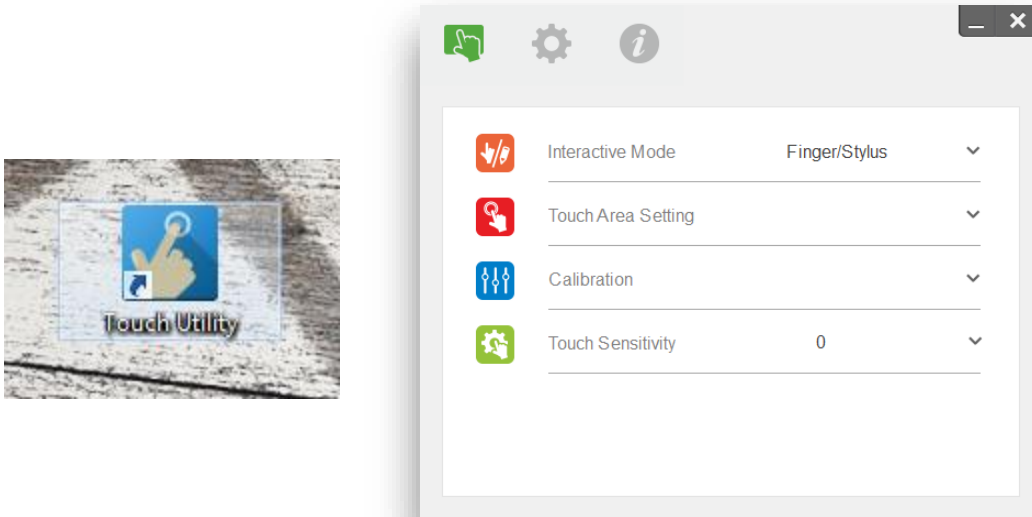


## Install the new Wi+ software.

Install the new generation software. It can be found here:

[www.i3learning.be/images/downloads/driver-touch-utility.zip](http://www.i3learning.be/images/downloads/driver-touch-utility.zip)

Follow the installation instructions on screen, and restart the computer afterwards.

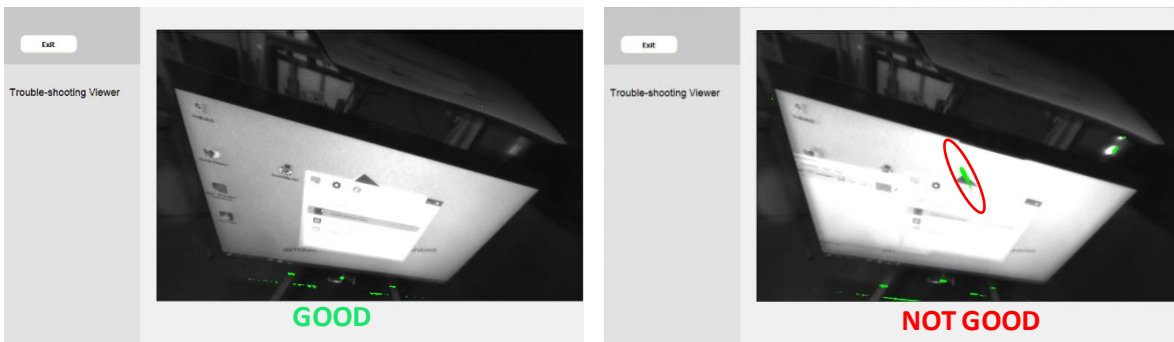


## Check the laser curtain alignment.

Check if the laser curtain is still correctly aligned, and perpendicular to the whiteboard surface. The new software has a tool to check the alignment. Open the Trouble-shooting Viewer.



Trouble-shooting Viewer



With this tool, the camera module detects reflections of the laser curtain and displays them with a green indication. If you see any green reflections on the whiteboard surface, please realign the laser curtain adjustment. No reflections on the projected surface does not necessarily mean the adjustment is good, but reflections mean the adjustment is definitely not good.

## Realign the laser curtain if needed.

Follow the familiar steps to align the laser curtain module. Find the installation adjustment guide.



### Installation Guide



The installation Guide provides you with step by step instructions on how to align the laser curtain, and afterwards will take you through the adjustment procedure.

Recheck the Trouble-shooting Viewer, to see if the alignment was successfully passed.

## Designate the Touch Area.

Open the Touch Area Settings tool, to designate the touch area the camera module has to watch.

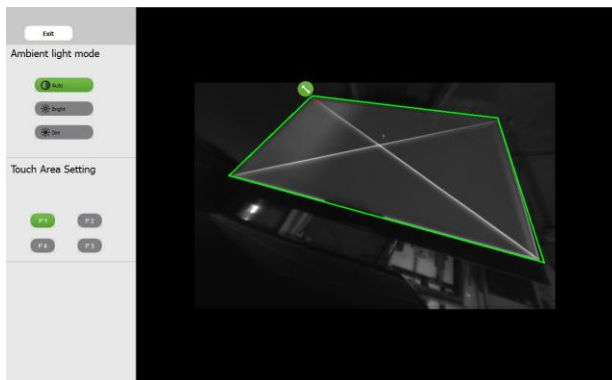


### Touch Area Setting



First perform an Auto-setting. Check if the tool correctly finds the borders of the whiteboard.

If the Auto-setting failed or was inaccurate, perform a Manual-setting and drag the corners to the outside of the whiteboard edges.



## Calibration.

Open the Calibration tool to assign touch input to the right location on the interactive surface.

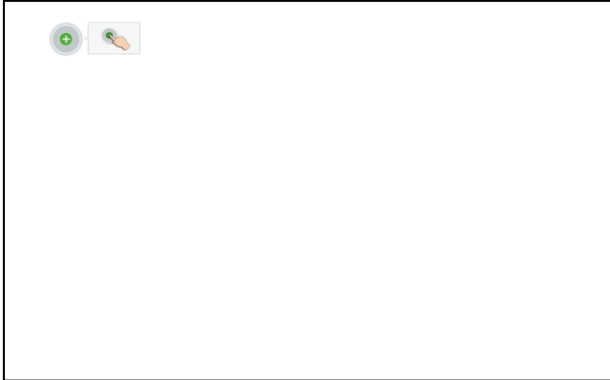


Calibration



First, perform an Auto-Calibration. Check if the tool correctly calibrated the touch input by looking of the mouse pointer accurately follows your touch.

If not, perform a Manual-Calibration and hold a finger or passive stylus on the marks displayed.



## Additional information.

The generation 2 Wi+ camera module decreases the interference caused by infrared parts of sunlight that camera inaccurately detects as the laser curtain.

This technology does not completely prevents infrared interference, and still can be influenced by direct sunlight to some degree. This new technology, compared to the previous generation, decreases the bandwidth of possible infrared interference, and tries to exclude possible interference input in its calculations. Still, it is necessary to block direct sunlight on the projector and interactive surface by shade curtains, even after the upgrade to the next generation camera module.