

# i3BOARD

MANUAL



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## II. i3BOARD basic questions & answers

### **How does i3BOARD works**

An i3BOARD is connected to a PC or laptop via a USB cable. This requires no additional power since power comes directly from the computer through the USB connection. When you turn on your computer the board automatically starts. By connecting your computer to a projector you can project the computer image on the i3BOARD. Touch recognition can work without drivers (starting from Win 7), but we always recommend to install them.

### **Can you right-click on an i3BOARD?**

Yes. Hold your finger for 3 seconds on the desired point of activation.

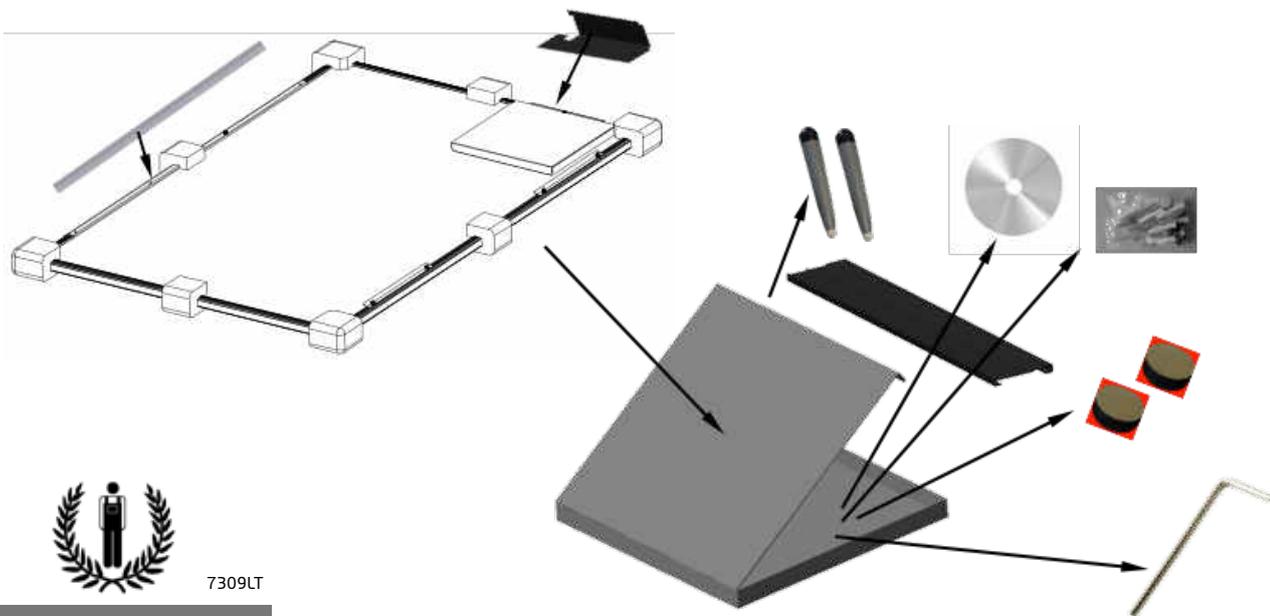
### **Do I need a special computer for an i3BOARD?**

A recent computer (see [i3-learning.com](http://i3-learning.com) for computer specs) equipped with Windows7 Home Premium or Windows 7 Ultimate or higher is perfect for an i3BOARD. Computers with Windows XP will also work, but will not have multi touch capability.

### **Can I work on an i3Board without drivers?**

Yes, this is possible in Windows 7 and higher

### III. Hardware installation manual

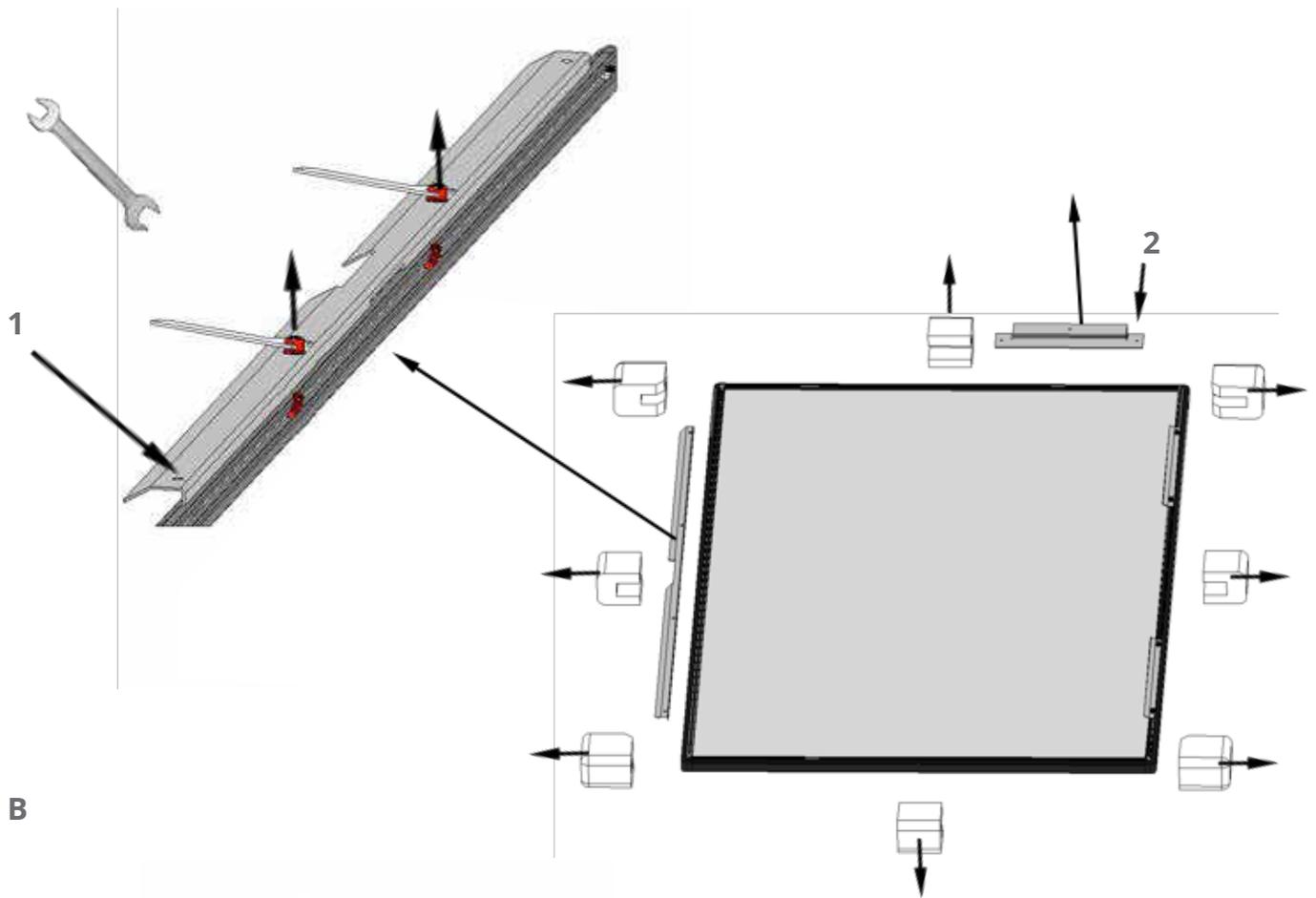


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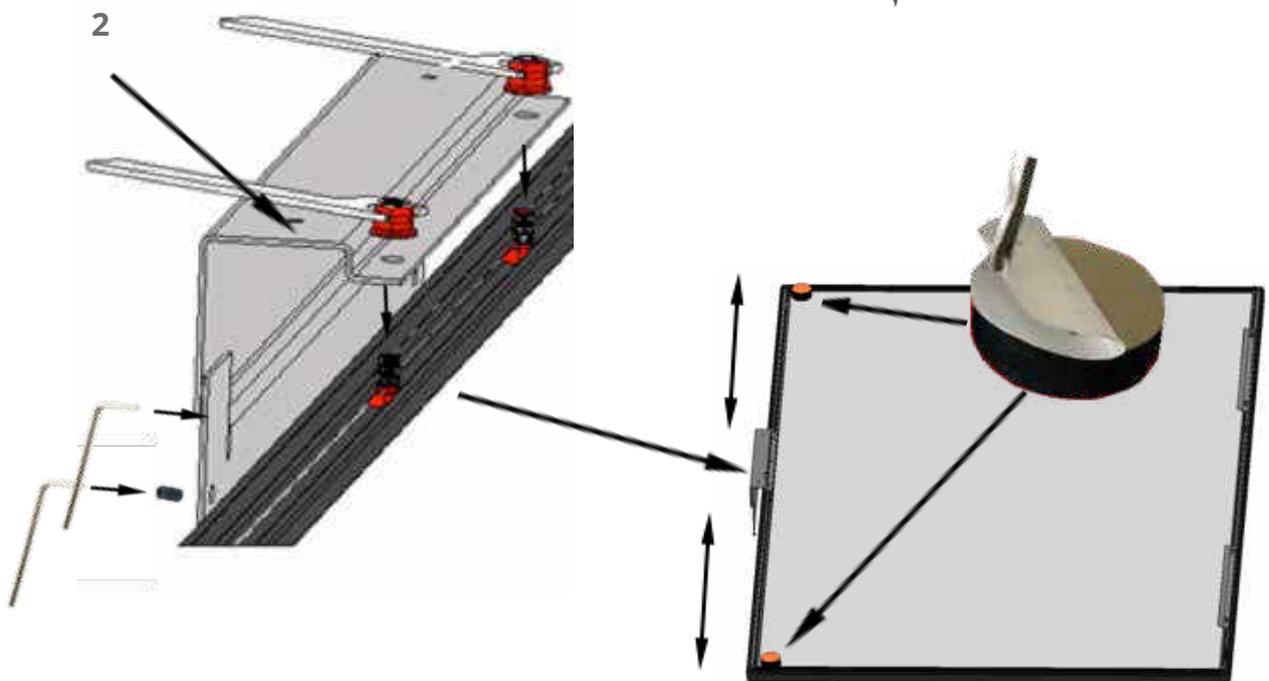


# 1. Wall Mount

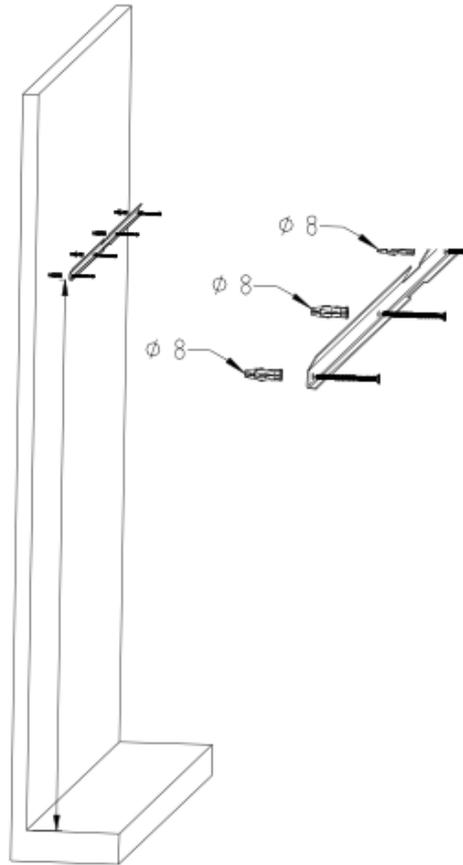
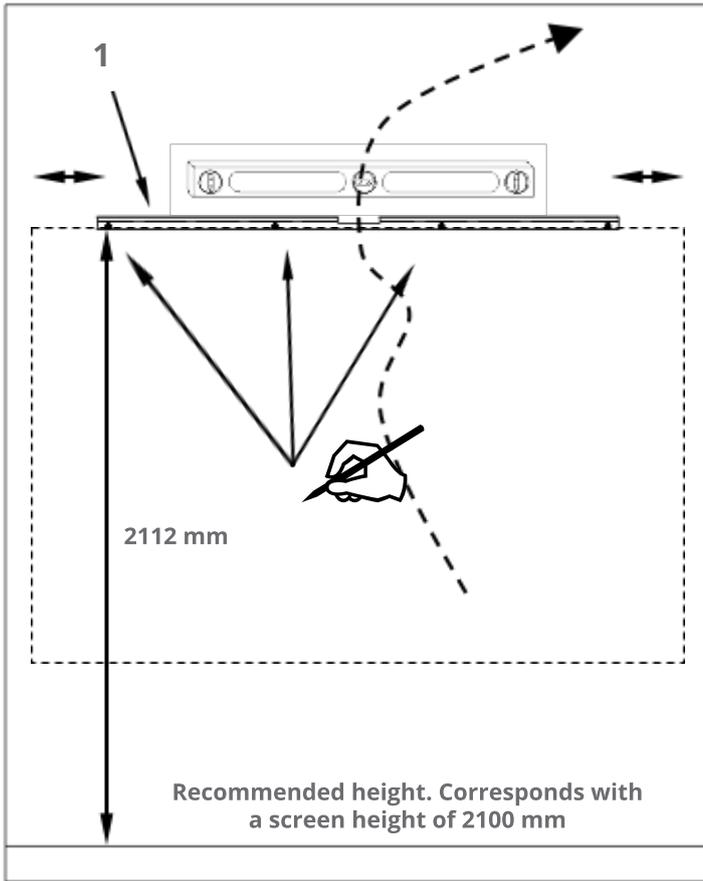
A



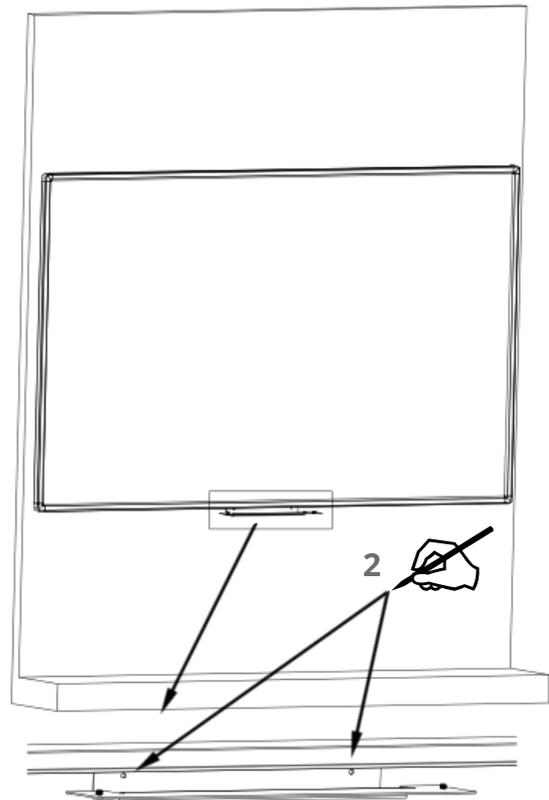
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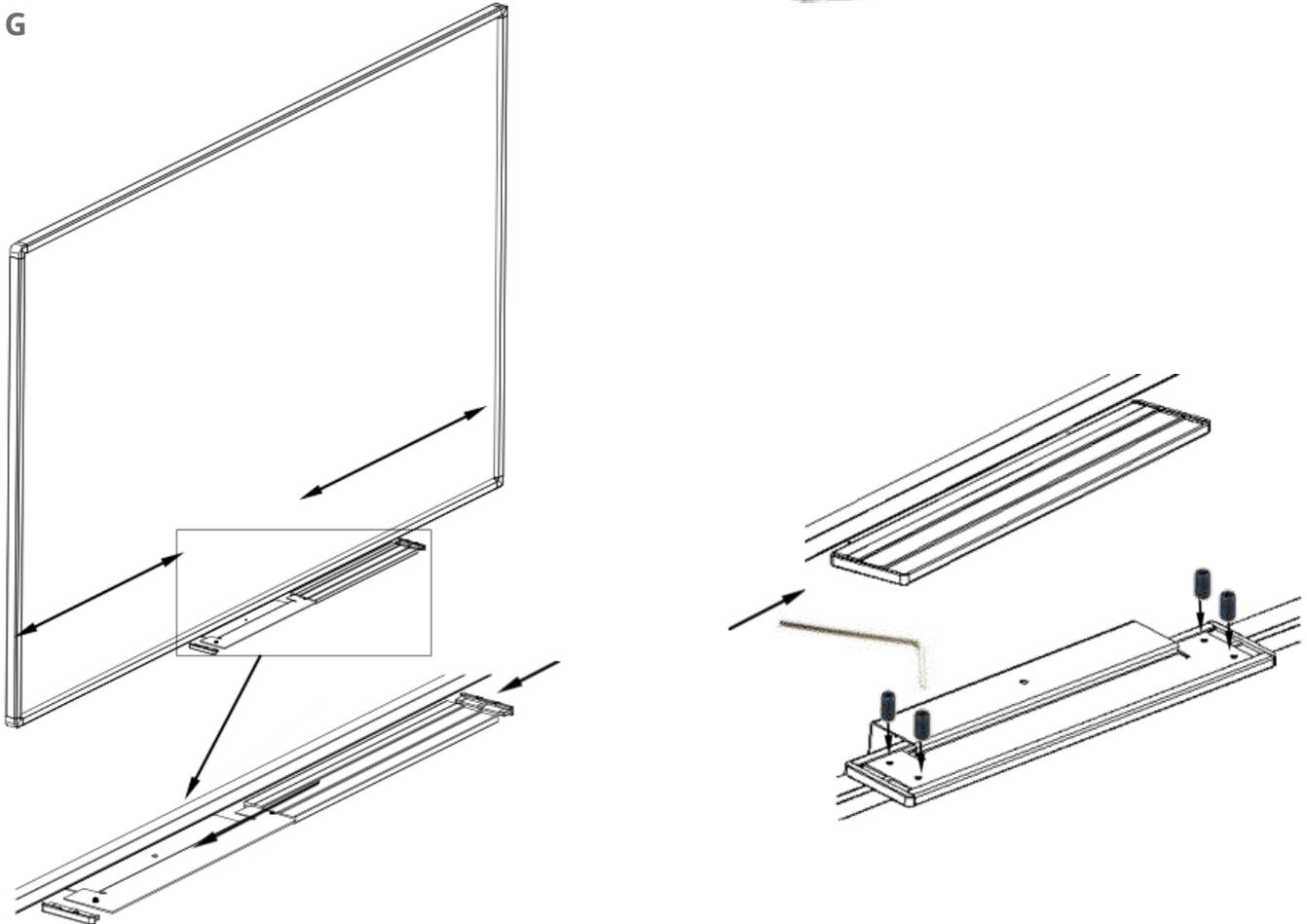
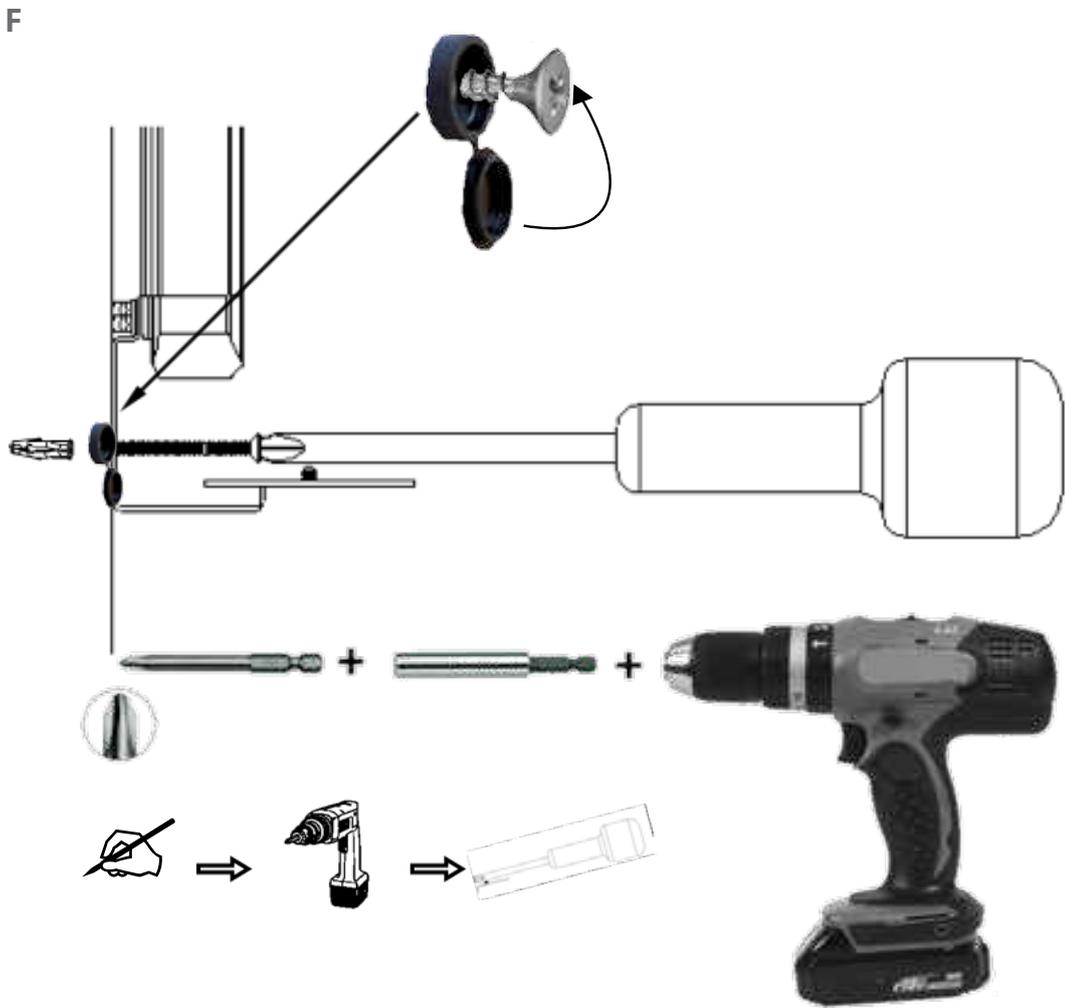


C



E



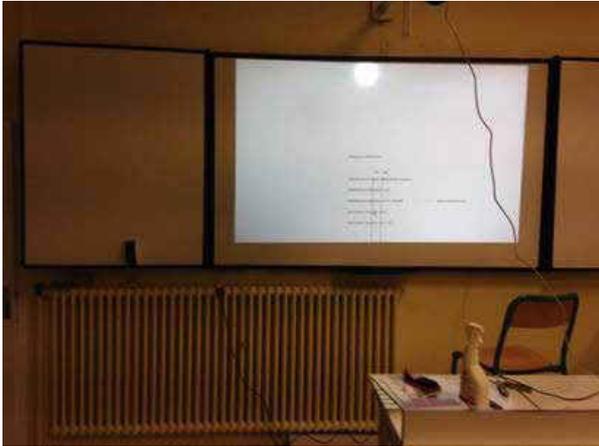


## 2. Mount on i3HAWM

Please consult the mounting instructions in the HAWM guide.

## 3. Important mounting remarks

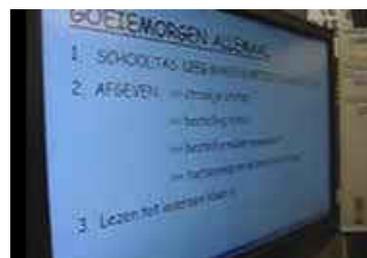
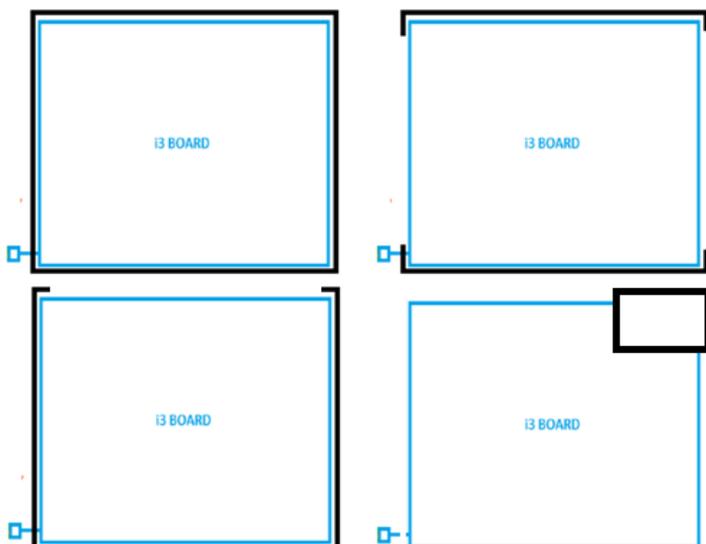
1. Please do not install the i3BOARD on top of a radiator or central heating



2. Please mount the pentray exactly as described in the installation guide, respecting enough distance between the board and the pentray in order not to create conflicts with the touch sensor of the board frame.



3. Make sure there are no objects all around the i3BOARD, on the left/right or top/bottom sides that could block the leds in the i3BOARD frame or cause light reflection.



## 4. Installation drawings

The below drawing indicates the best installation

of a i3BOARD 87inch & i3PROJECTOR 2402W.

For the i3BOARD 77inch the projector distance (309mm & 654mm) is the same.

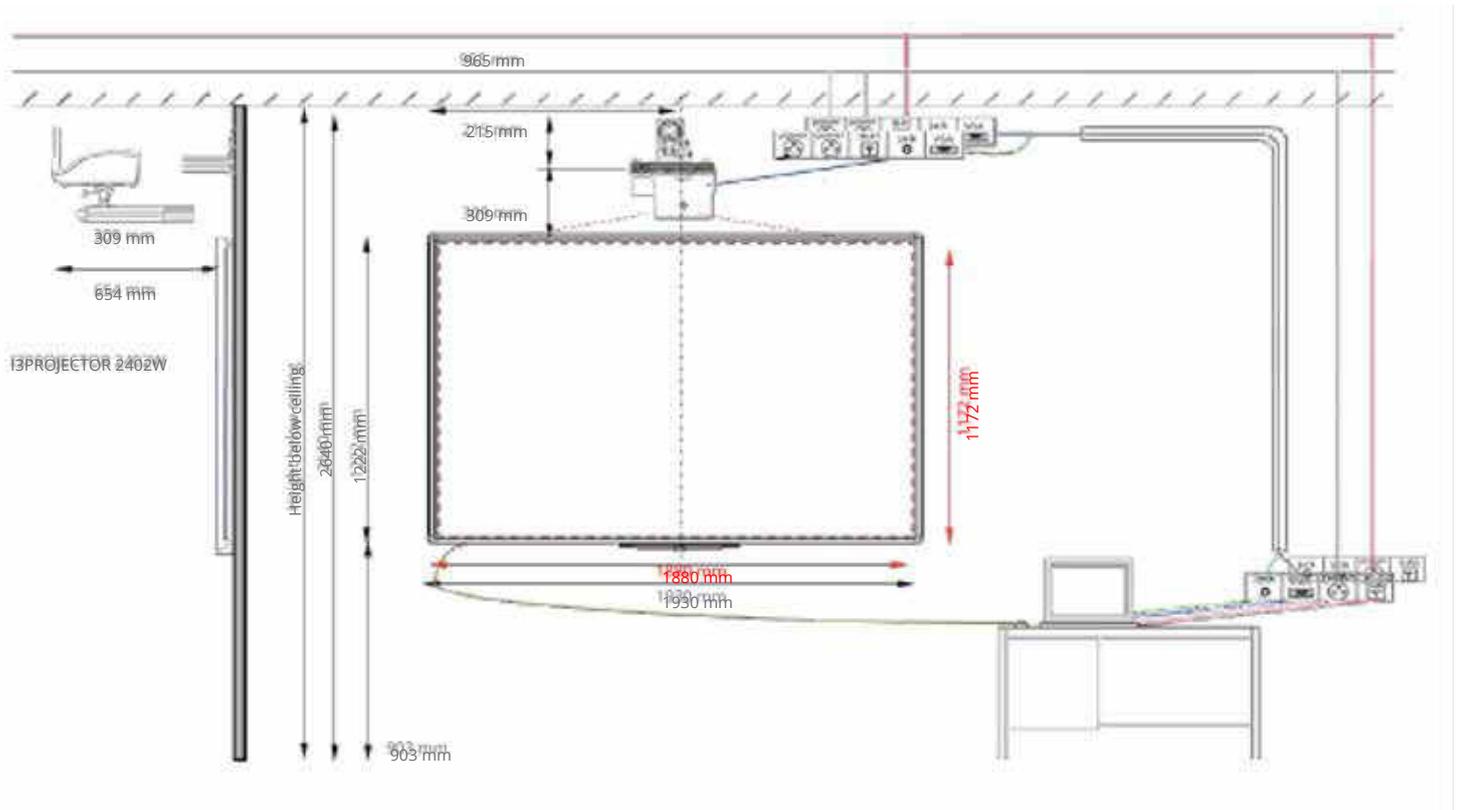
The board has the same height but another width (4 :3).

On the drawing the use of VGA is similar to HDMI. The use of RJ45 is optional.

When using VGA you should also use a jack to use the speakers of the projector.

The i3BOARD is not delivered with the VGA/HDMI cables for the projector or

USB extender cables.



## Mounting i3BOARD with any projector

When installing an i3BOARD with another projector already installed (not i3PROJECTOR) you can use the following method to find the exact locations to locate the drill holes for the horizontal mounting brackets.

Hold the board with 2 persons on the correct location where the projection is full-screen. Open a folder on the computer where the top border is exactly on top of the projection.



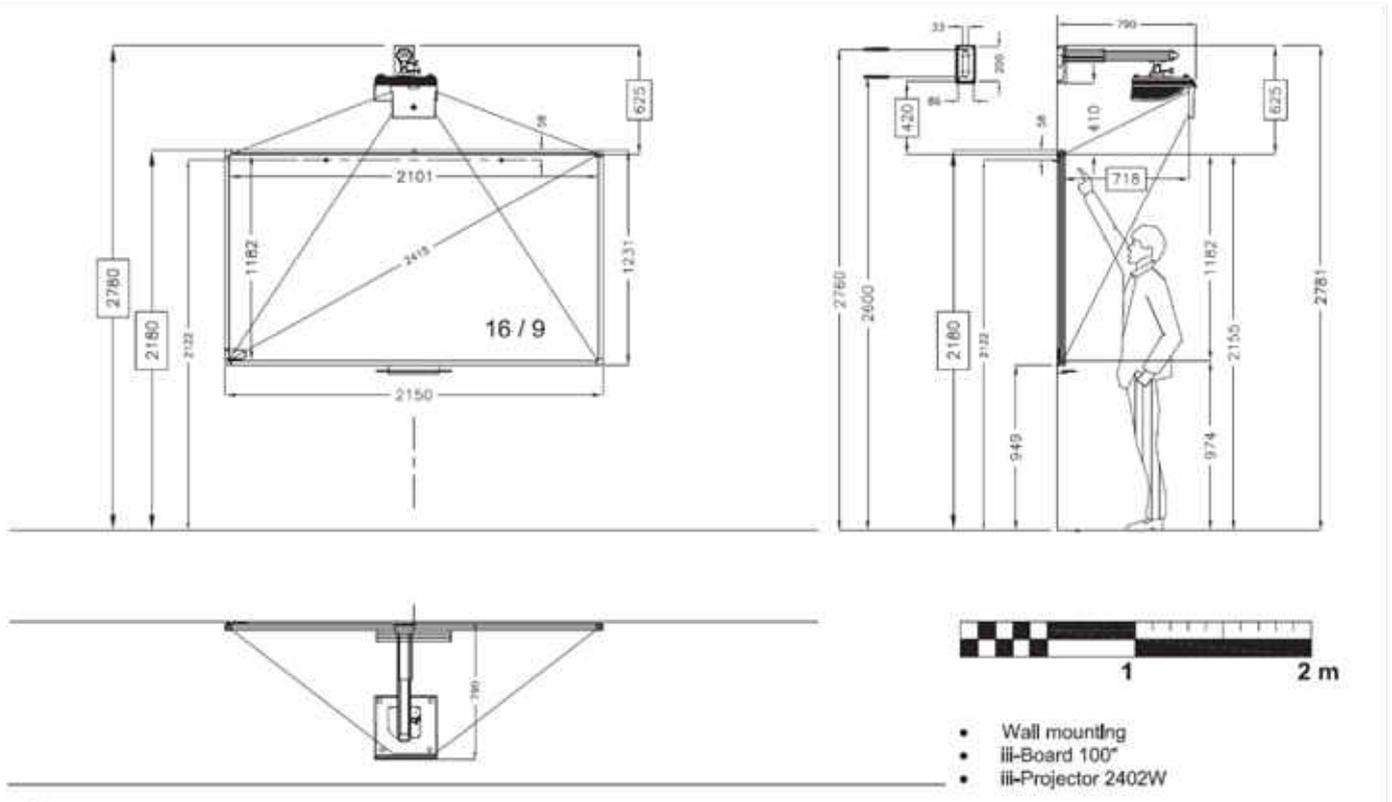
Remove the board and draw a line on top of the projection. The folder can help you to distinguish the exact top of the projection and draw the line.



Draw a second line 1.1 centimeters lower than the line you have drawn. This line height is the height where the holes of the horizontal bracket needs to be drilled. For further information, please refer to the i3BOARD mounting instructions.



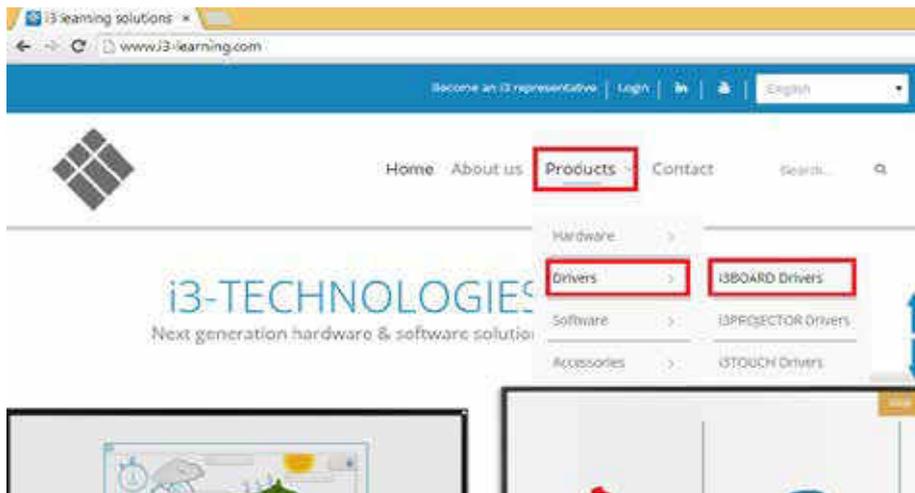
# Mounting plan i3BOARD 100inch



# IV. Configuration & driver installation

## 1. Driver download

Go to the i3-learning website [www.i3-learning.com](http://www.i3-learning.com) and download the latest drivers (products -> drivers -> i3BOARD drivers)



## 2. Connecting the board

Connect the i3BOARD to the supplied USB cable

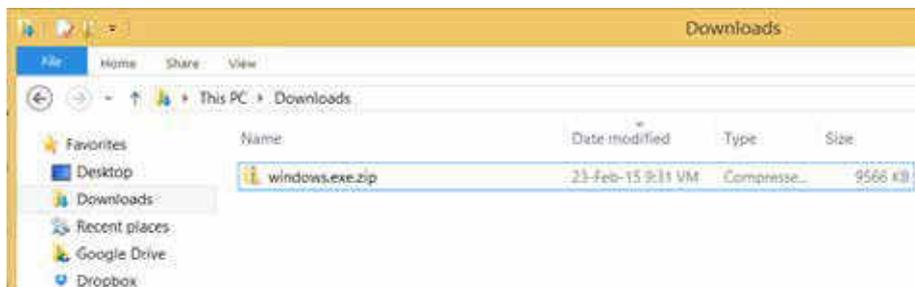
Connect the other end of the cable to your computer



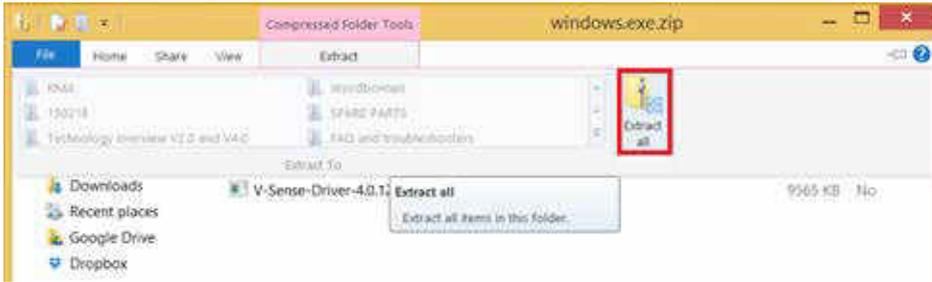
Install the projector in order to calibrate the board later on.

## 3. Installing the drivers

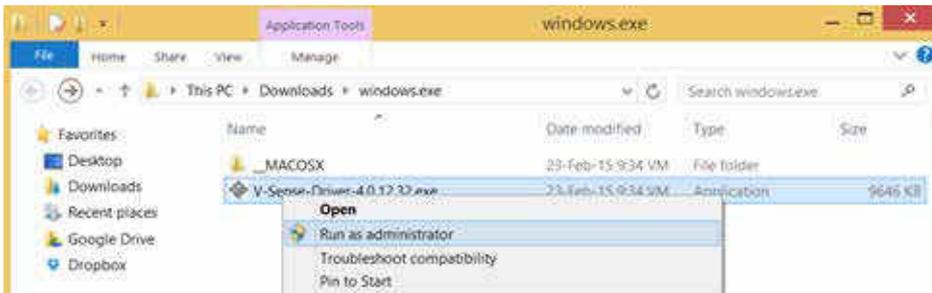
install the drivers you downloaded on the website (you will find the driver in the download folder that has been set in your browser preferences).



The drivers are compressed in a .ZIP-file. When using windows 7 or higher: double click the file and choose “extract all”. Extract the content of the folder on your PC.



Now click on the file “V-Sense Driver – x.x.xx.xx.exe” (version number depends on the download date). If you cannot open the file, right click on the file and choose “run as administrator”. Make sure you have installation rights.



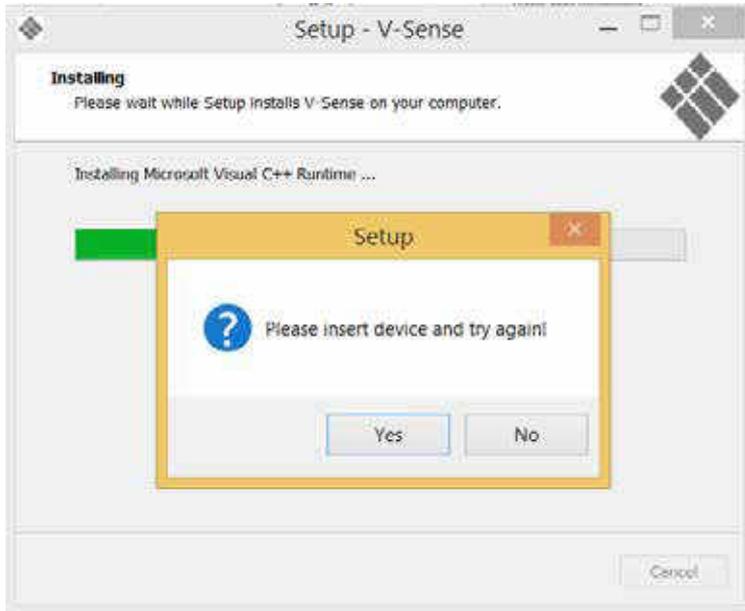
Run the installer and click 4 times “next” and finally “install”. If you can finish the installation, the drivers will ask for a reboot. Reboot your computer to finish the installation.



If the installation was successful, skip step 4

#### 4. What to check when drivers can't be installed

The newest V-sense drivers can be installed even when no device is connected. If you install a driver and you get the message "please insert device and try again", you are installing an older driver version. If you want to install an older driver (e.g. when the newest driver is not compatible anymore with your O.S.), make sure the computer is connected to the board when installing the drivers. If the board is not connected properly, you cannot finish the installation. The installer will ask you to insert the device and try again.



If the board is connected properly but you cannot finish the installation, make sure the USB-port and cable are working & supplying sufficient power (see step 5). To check if the USB-port & cable are working, first try another USB-port. Then try another computer and/or try another short high quality USB-cable. Do not connect the board with your computer using multiple USB-cables (see step 6). Unless you concluded after testing that it is defect, we advise only to use the USB-cable delivered with the board. Prolonging the distance from board to PC using multiple USB-cables can result in a loss of power and signal strength (data signal).



#### 5. Power supply

The i3BOARD needs around 5 volts to be recognized & work properly. The board is powered via the USB-cable and the USB-port of your computer. In very seldom situations (!) a i3BOARD will have touch but show strange behavior such as random "ghost touch points" on locations where no finger or pen is located. Strange behavior or a non-recognized board are the result of a USB-port not supplying sufficient power, cables that are prolonged or a single cable that is too long or not high quality.

If you tried another cable and/or computer and the problem is only encountered with one computer, use a powered USB-hub (a USB-hub with its separate power supply providing a power boost to all USB-ports) or a powered USB cable

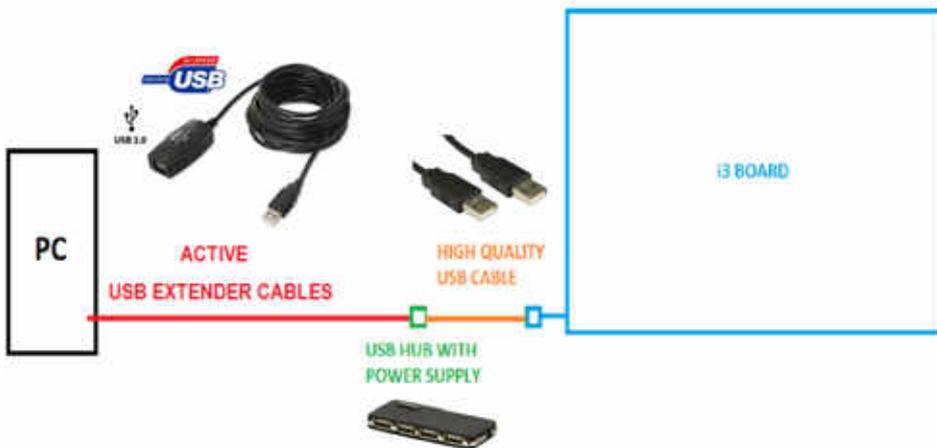


When you need to prolong the cable length to the board, use active USB extender cables. See step 6.

### 6. USB-cabling of the i3BOARD

Normally a computer and a i3BOARD will communicate without any troubles if only the delivered USB-cable is used. In some cases however other cabling is necessary because of insufficient power (see step 5) or because the PC is located away from the board.

Check if your installation setting matches with the below image. The active USB extender cables (RED) are only used when cables need to be prolonged. The USB hub (GREEN) is only used when the board is not getting sufficient power.

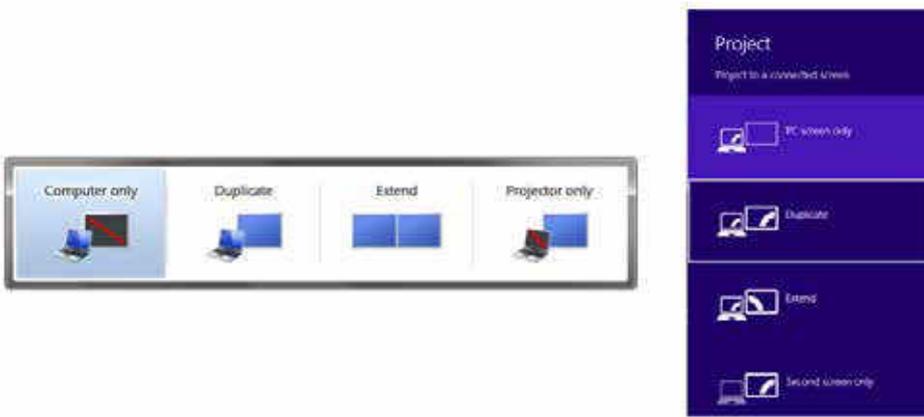


### 7. Connecting the projector

Connect your computer with your projector. If necessary, duplicate the image. The key-combination to be used to extend your display depends on your computer brand. E.g. Dell-computers: FN+F5



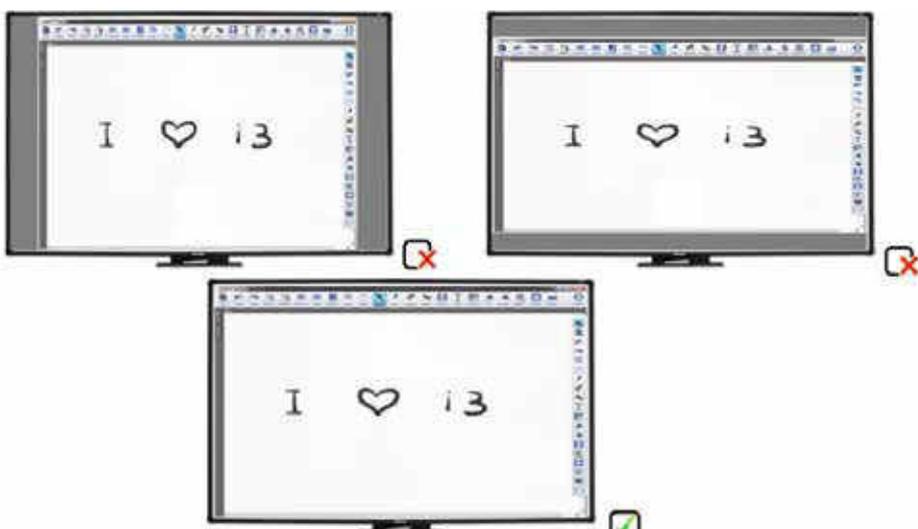
Choose "duplicate" to see the computer image on both PC display and projector, or "projector only" to see the computer image only on the projector.



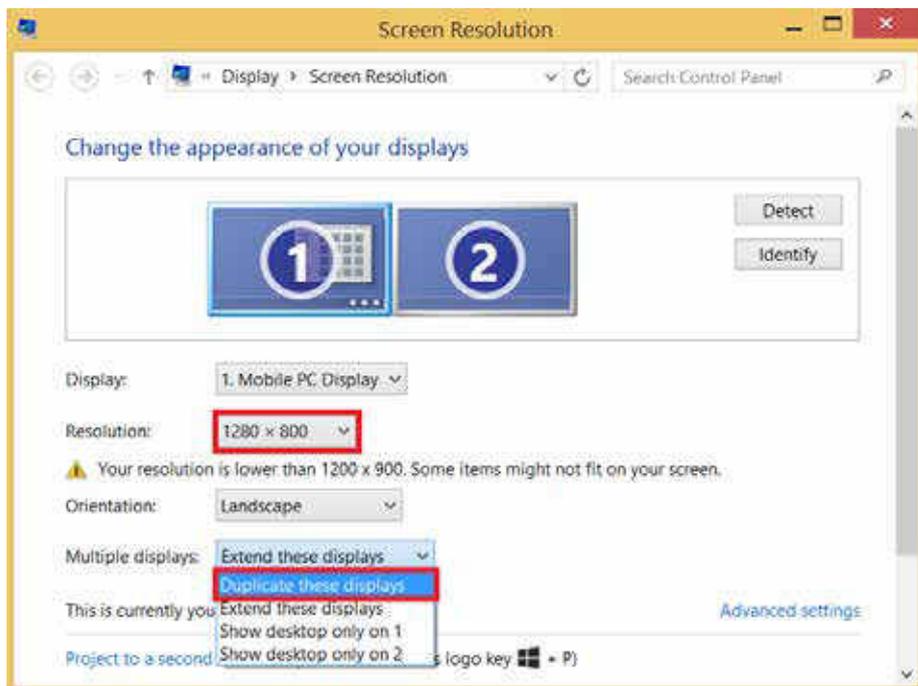
Make sure the image shown on both your computer screen as on the i3BOARD is full screen.



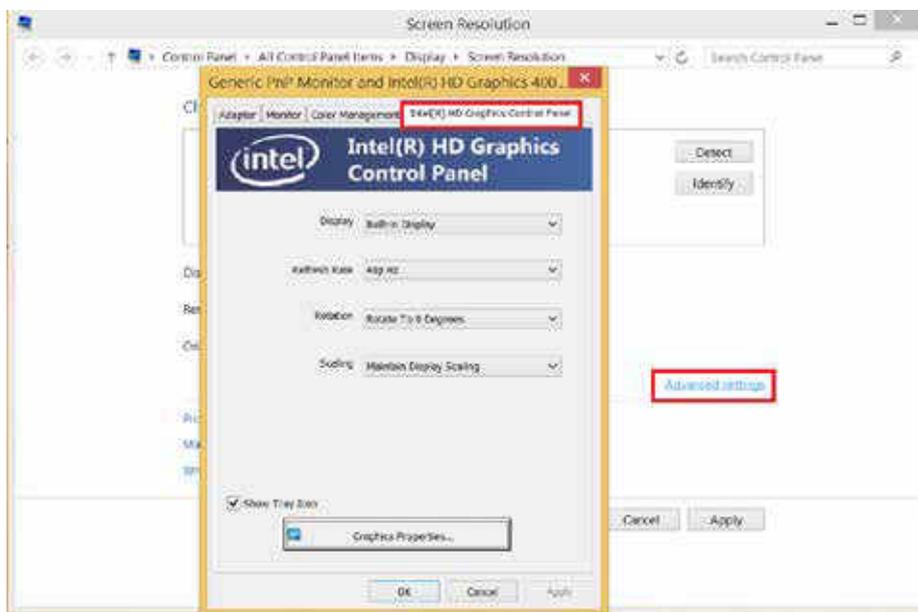
Prevent black borders left/right or top/bottom. This means there is a difference in resolution.



If the computer display or the projected image is showing black borders, go to “control panel -> display -> screen resolution”. Choose resolution 1280\*800 (applicable for i3 PROJECTOR & the 87” i3BOARD). This is a 16:10 resolution and the WXGA native aspect ratio of your i3 PROJECTOR. If 1280:800 is not available, choose a resolution as close to 1280:800 as possible. Preferably a 16:10. Then choose duplicate. (For the i3BOARD 77” choose a 4:3 resolution (e.g. 800:600) and change the projector to the 4:3 aspect ratio).



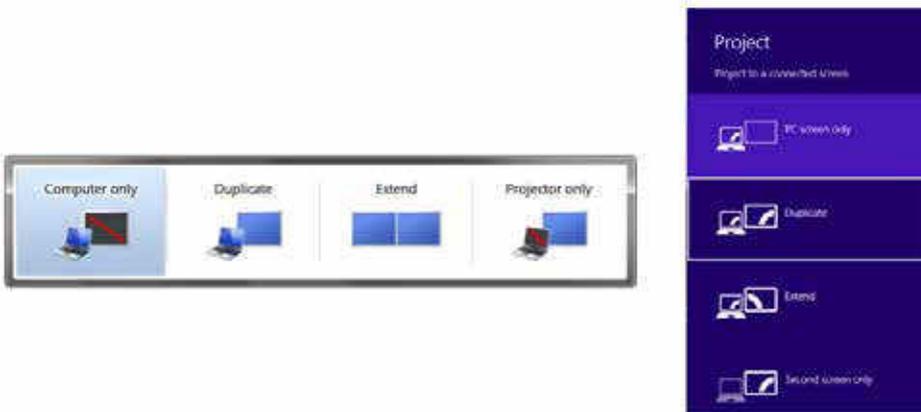
Now choose “advanced settings”. Choose the tab of your graphical card control panel. In this field you should see the options display, refresh rate, rotation and scaling.



Click “display” and select the screen that needs to be scaled. Either your computer display (for laptops called “built-in display”) or the monitor/projector. Click “scaling” and choose “scale full screen”. Then click “apply”. If necessary, have both scaled to full screen.



If you don't manage to have both screens scaled full screen, the graphical card of your computer or the drivers of this graphical card might need to be upgraded. As an alternative, choose "projector only" in your display settings and only use the projector. If you prefer to use both computer display and projector, move on to step 9 before heading to step 8.



## 8. Calibrating the I3BOARD

Calibrate your board. The best method to calibrate is using the V-sense drivers. Go to start -> all programs -> i3learning -> V-sense -> V-Sense Driver Configuration. If you have a windows 8.1 computer, search for the V-sense driver in the search field of the start screen

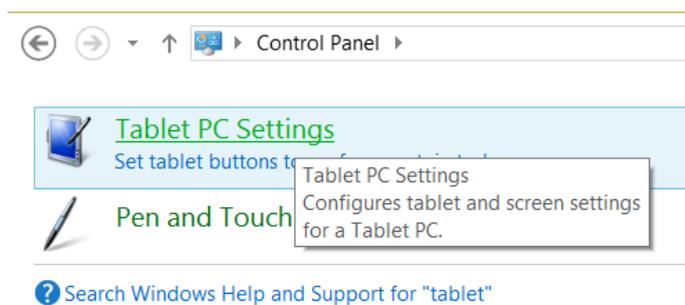


Choose calibration and press on the 9 red circles with your finger (or the i3BOARD pen to increase accuracy) from the top left side to the bottom right side.

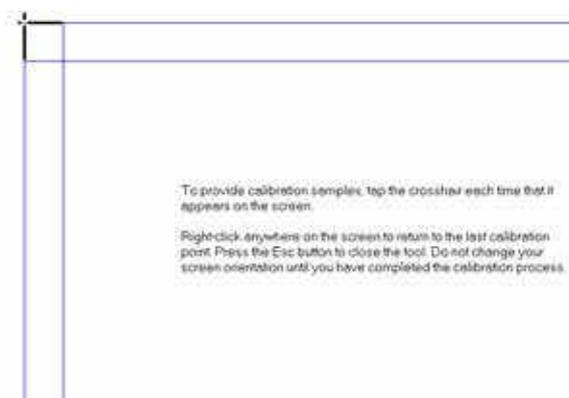


This concludes the calibration. Check if your board is calibrated well. If so, the board is ready to be used. Before using the board, please check step 11. If you cannot calibrate the board because of no touch, move to step 12.

If you calibrated the board but the calibration is not accurate, you can perform an extra calibration using the Windows calibration tool on top of the V-sense calibration. Go to "control panel" -> "tablet PC settings" (windows 7 / windows 8)

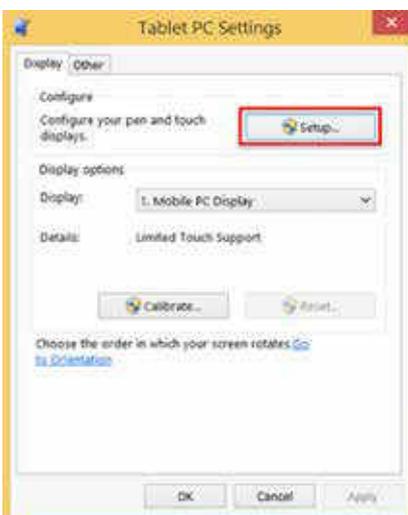
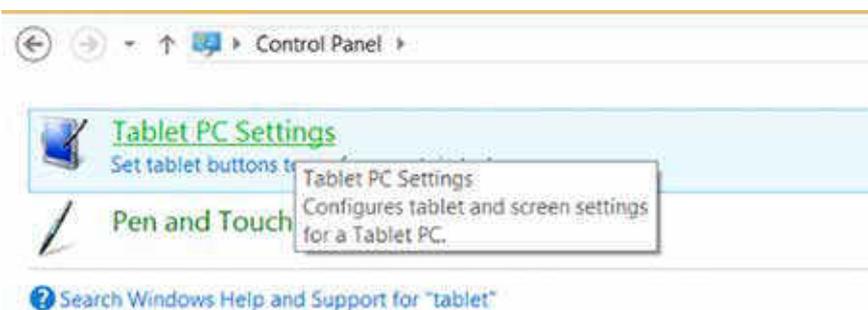
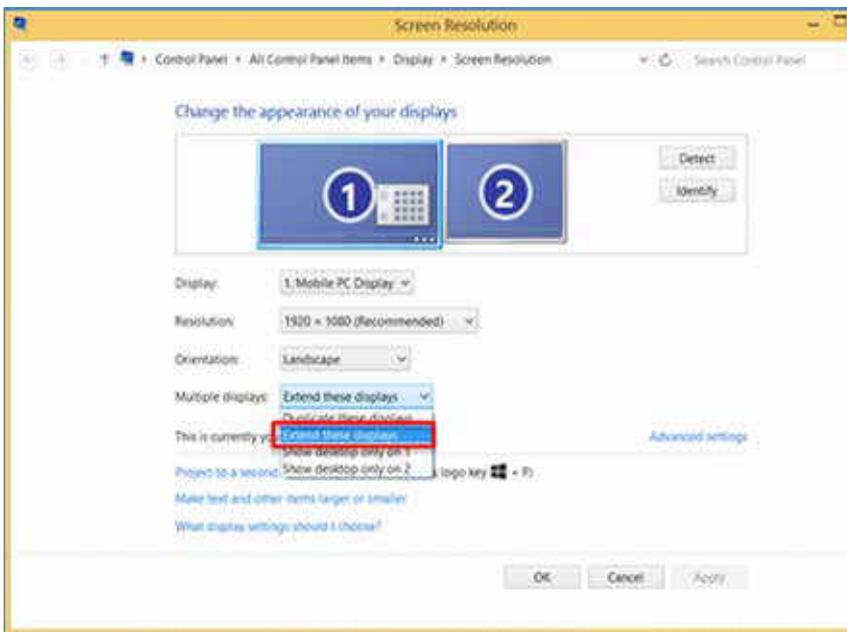


Now choose "calibrate" and press with your finger on the black crosses



## 9. What to do if calibration is still inaccurate even after calibrating in V-sense & windows

If you calibrated the board using the V-sense drivers & windows calibration, if there are no black borders on the PC screen or the projected image but still the calibration is not accurate, go to "screen resolution" (see step 7) and choose "extend" instead of duplicate and apply.

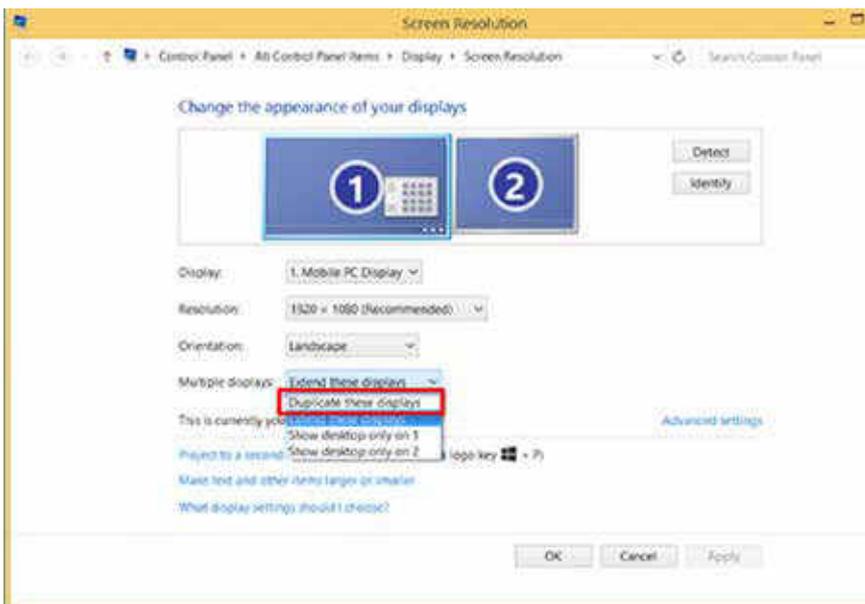


Follow the on-screen instructions. Tap on the board when the below instructions are shown on the board or press “enter” when you read the instructions on your computer screen only. With this step you identify the board as the touch screen to be used in windows. Finish with “escape”.

Touch this screen to identify it as the touchscreen.

If this is not the Tablet PC screen, press Enter to move to the next screen. To close the tool, press Esc.

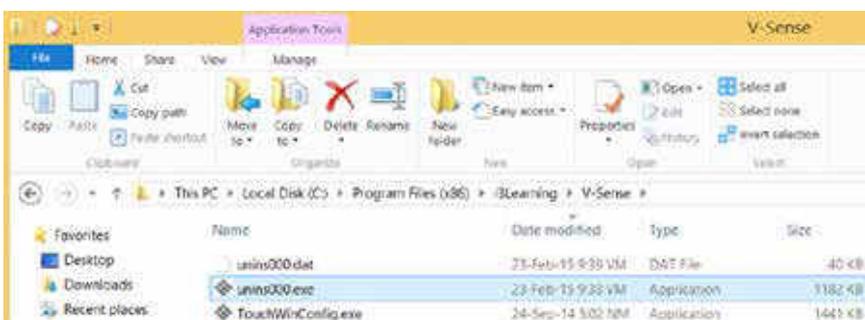
Touch the board and check if it recognizes touch, regardless to it’s accuracy. Then check the accuracy of the touch. If not accurate, calibrate using the V-sense driver calibration. If still not accurate after calibration, go to screen resolution and choose “duplicate” again to duplicate your computer screen on the board.



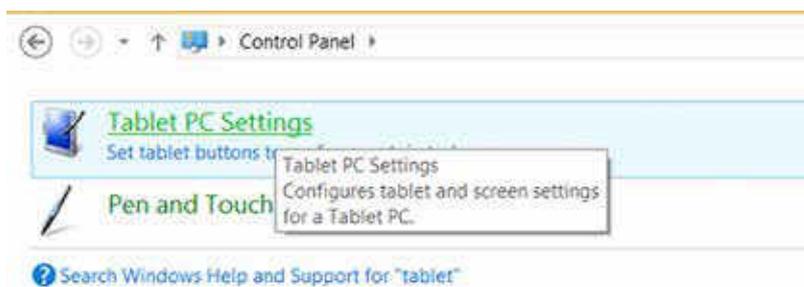
Calibrate again with the V-sense drivers and test the result. If the i3BOARD is still not calibrated fully accurately, the problem might be related to your computer graphical card or its drivers that needs to be upgraded.

## 10. What to do if windows calibration does not start

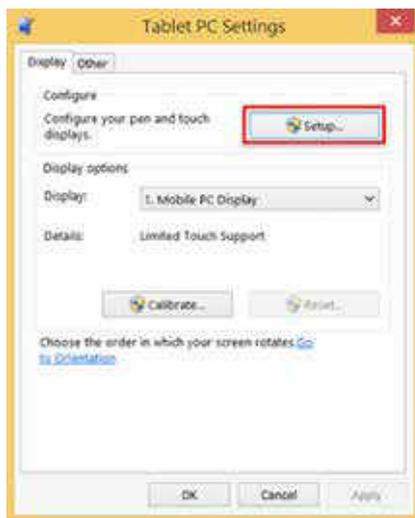
Sometimes the Windows calibration cannot run because the board is already calibrated with the V-sense driver. Remove the V-sense drivers using the uninstaller (unins000.exe) in the folder “program files\i3 learning”.



Now go to "control panel" -> "tablet PC settings" (windows 7 / windows 8)



Choose "Setup"

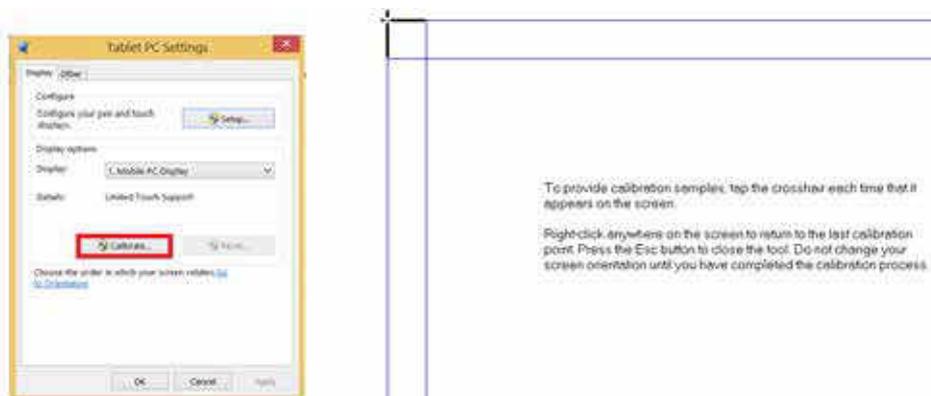


Follow the on-screen instructions. Tap on the board when the below instructions are shown on the board or press "enter" when you read the instructions on your computer screen only. With this step you identify the board as the touch screen to be used in windows. Finish with "escape".

**Touch this screen to identify it as the touchscreen.**

If this is not the Tablet PC screen, press Enter to move to the next screen. To close the tool, press Esc.

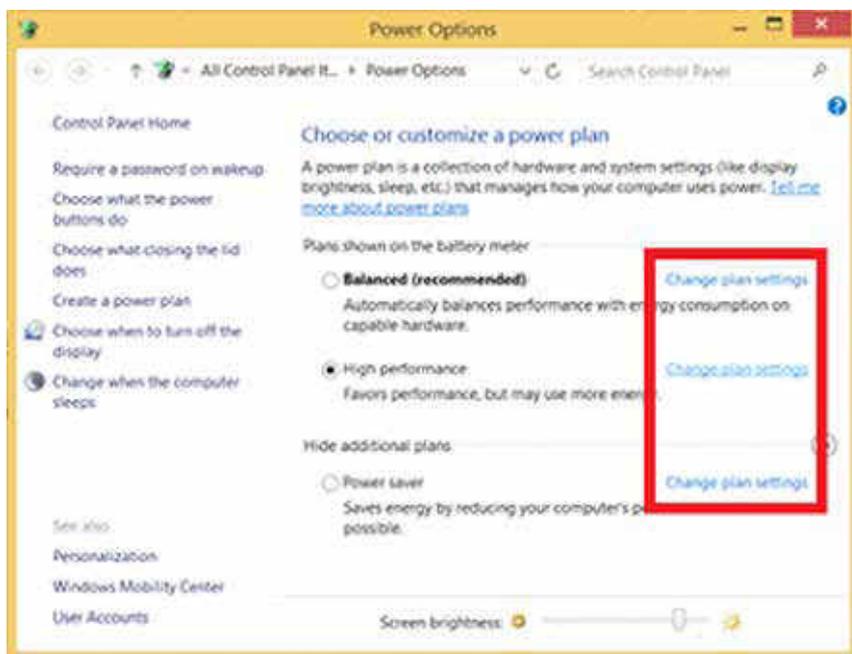
Now choose "calibrate" and press with your finger on the black crosses



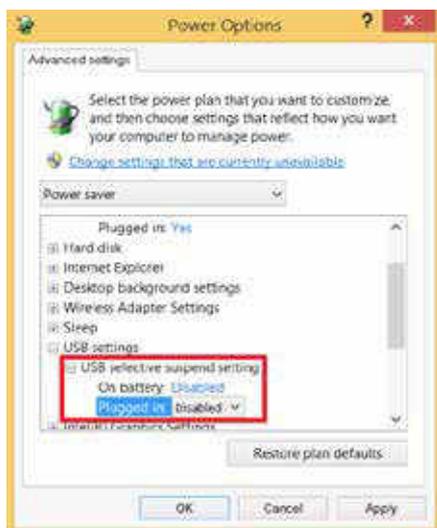
After having pressed on all the black crosses, the calibration is finished and the calibration should be fully accurate. If this is still not the case, contact your i3DEALER. Keep in mind the windows calibration tool only enables 7 touch points (windows 7 and higher).

## 11. Disabling “USB Selective suspend setting”

Some customers experience that touch is lost after 15 minutes. This is because the i3BOARD is fed by the power supplied from the USB-port of the computer and some computers have “USB selective suspend setting” enabled to save power. Go to Control Panel\All Control Panel Items\Power Options\Edit Plan Settings. Click “change advanced power settings”.



For each power plan used (!) click USB Settings -> USB selective suspend settings -> disable both “On Battery” and “Plugged In”



## 12. No touch after installing the driver

When the driver was installed but you have no touch, this may be due to:

### - The touch sensor of the board being recognized earlier than the projector at start-up

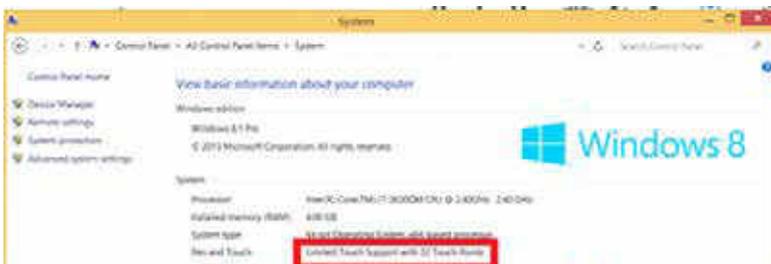
This problem only occurs on certain Win 8.1 versions. It can be solved by installing the latest drivers online including a bugfix. If you prefer to use older drivers, unplug the USB-cable and reboot your PC. After reboot, when an image is shown wait 10 seconds. Then plug in the USB-cable.

### - A touch driver conflict

Check if you have touch when opening the V-sense driver and selecting "mouse" mode in settings and then "apply". If you have touch, you might need a driver update. Check if you downloaded the latest drivers on the website and if so, contact i3 support



if you don't have touch using "mouse" mode, check your system settings (Control Panel\All Control Panel Items\System). If the drivers are working the pen & touch should indicate 32 touch points.

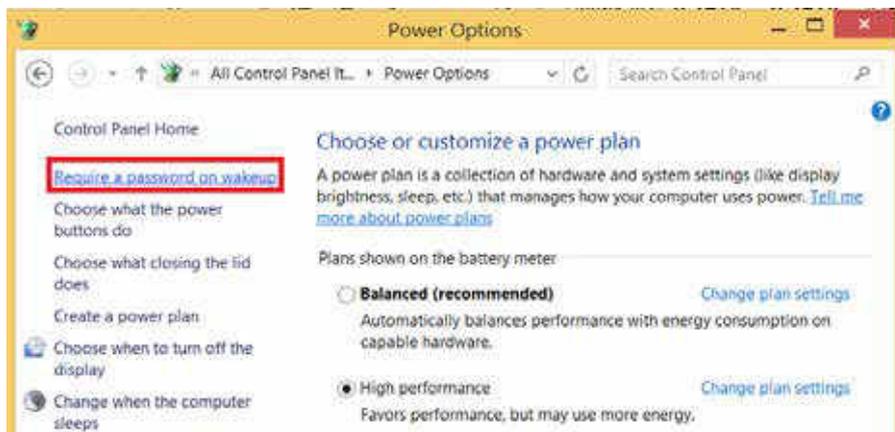


If you don't see 32 touch points, the driver is not running correctly. You might need a driver update. Check if you downloaded the latest drivers on the website and if so, contact i3 support.

## - The “turn on fast start-up function”

Some computers have a “turn on fast start-up” function to quickly boot. If that function is enabled, sometimes the touch sensor is not recognized at start-up or the touch sensor is recognized before the projector/display, which causes a conflict.

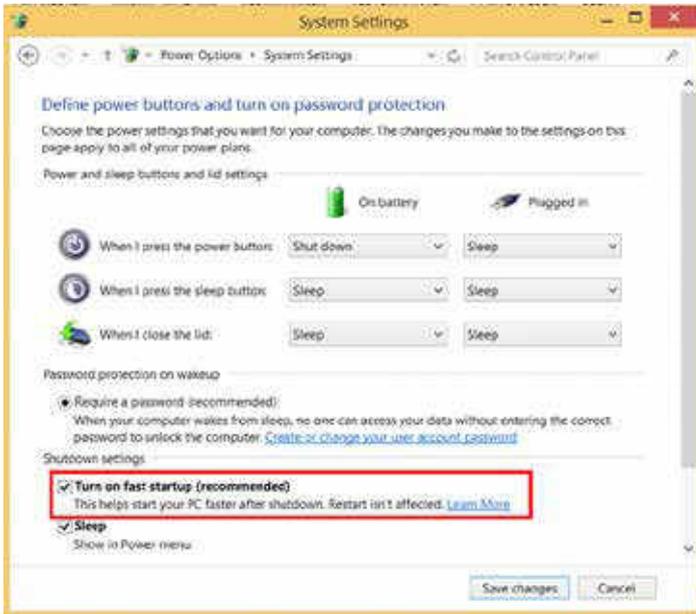
Go to Control Panel\All Control Panel Items\Power Options. Choose “require a password on wakeup”



Choose “change settings that are currently unavailable”



Turn off "fast startup"



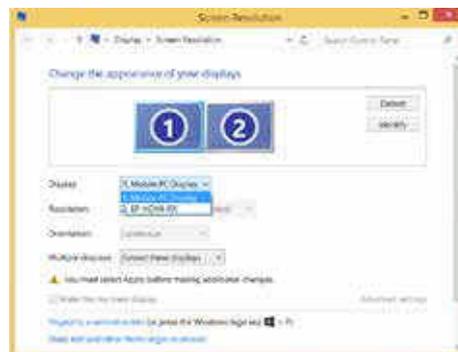
### 13. What to do if you can't duplicate your screen

If you can't duplicate your screen, contact your internal ICT support. Some computers have onboard graphics of the motherboard controlling the display of the laptop (e.g. intel HD Graphics 4000) but also have an extra (stronger) graphics card (e.g. Nvidia NVS 5200M) to control (F)HD projectors or displays connected to the computer.

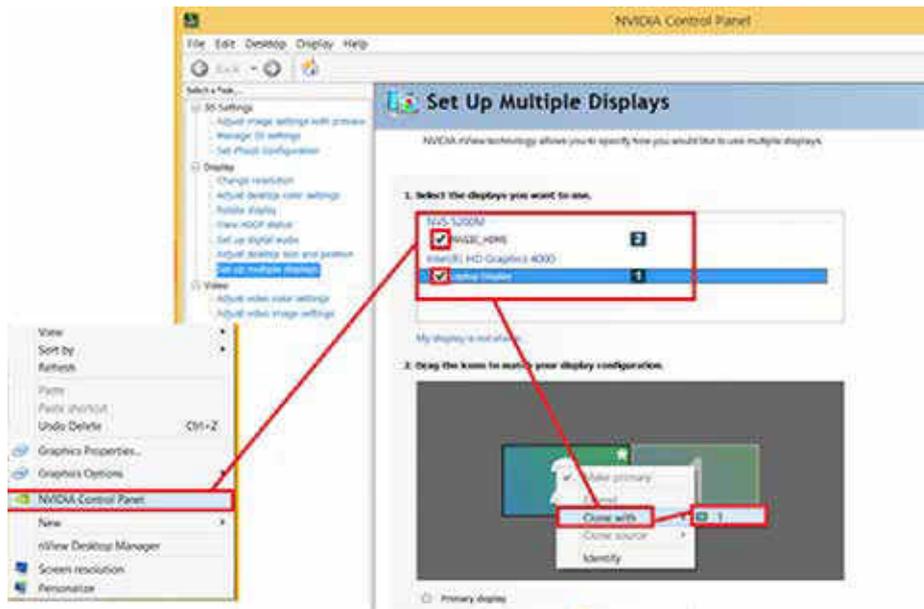
It can happen the settings you change in "display -> screen resolution" only change the onboard graphics settings while the device connected to your HDMI-port is controlled by the graphics card and it is difficult to duplicate. When duplicating you see this



instead of



In that case you need to enter the control panel of your graphics card and choose duplicate or clone with laptop display. Below is an example of Nvidia:



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