Universal Remote - Manual

Installation

Apart from installing Universal Remote itself, you also need to install the Kinect Runtime 1.5 from Microsoft, available from here: http://go.microsoft.com/fwlink/?LinkId=253187
If you get an error message when activating *Near Mode / Seated Tracking* , please check if you have installed the 1.0 version instead. If yes, remove it and reinstall from above link.
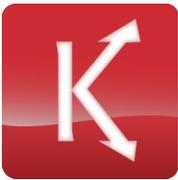
Setting up

Place your Kinect where it can see you during presentation. Do not stand too close: your whole body must be seen except in *Near Mode*, where the upper body is sufficient (make sure hands can be seen for all gestures). Plug it in, connect its external power supply and then start Universal Remote.

Check Show P*review.* You need to be fully within the frame except in *Near Mode*, and the depth view must show your body shape in any color (i.e. not gray). The detected positions of your left and right hand are marked with filled circles. If you are cut-off at bottom or top, change the Elevation setting. Make a few gestures. You should see lines for move gestures and rectangles for zoom gestures.

Choose the application to control via *Control* listbox. Prezi and Powerpoint should be automatically detected if started and switched to full-screen mode *before* starting Universal Remote. The *Control* listbox can be updated via *Update process list* (just after *Please select*) at any time, which will also rerun the automatic detection process. If it still does not work, try appropriate entries from the list (e.g. Prezi.exe, powerpnt.exe, ...) - and tell us which one works so we can update the automated detection.

Check *Remote enabled*. This switches off preview and instantly brings the application window to the foreground. If it does not do that, chances are you chose the wrong window or the application was not set to fullscreen mode.
Try a few gestures, possibly switching back to the Universal Remote window and changing settings, updating process list and so on.

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When *Remote enabled* is checked, changed settings will be active instantly. The next gesture will bring the application window into the forgeground again or you can change to it manually.

~~**Do not leave *Preview* checked during remote control!** Playing videos in the application or other cpu-intensive tasks in the background will reduce the processing frame rate down to <1fps and recognition will no longer work. **Always** switch off preview when controlling an application. This is automatically done if you switch *Remote enabled* on.~~ **This is no longer an issue, Preview should be fast enough and you can leave it running.**

Supported Gestures (only Pro version supports all gestures)

For gestures to be recognized, you need to stand straight in front of the Kinect and your body must be fully visible to it. In *Near Mode*, your upper body including hands is sufficient. Turning more than about 30° from the Kinect will usually allow you to move your hands freely to point to your slides.

Slide with your hand to the left or to the right to activate keycode left or right. Either hand works. *(all versions)*

Raise either your left or right hand to press the left mouse button. After that move the other hand to the front. This controls the mouse cursor. The controlled application must be in fullscreen mode. *(pro version)*
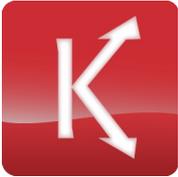
Make a diagonal movement with both hands. Move both hands to the front and move them away from each other (zoom in) or towards each other (zoom out), then retract them. *(standard and pro version)*

Use the settings to the right. Here you can configure the universal remote to fit your personal needs.

The number of options available depends on your version of universal remote.

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Settings and Controls

Kinects: Here you can choose your Kinect if multiple ones are connected to your computer. However since all Kinects we have seen so far have the same *unique id* this may not work. You can only use tracking for one Kinect at a time.

Show Preview: gives a preview of the processing. Slide gestures are shown as lines, zoom gestures are shown as rectangles in the large window. The small window on the top right shows the depth image in preview mode.

Remote enabled: Clicking this should instantly bring the program you have selected (via Control) to remote control into the foreground. If not, you probably chose the wrong window. Many executables have several windows, just try them until you get the right one. Prezi and Powerpoint should be automatically selected if started and switched to full screen mode before Universal Remote.

Invert move left/right: Inverts move direction (i.e. slide left activates keycode right and vice versa)

Invert zoom in/out: Inverts zoom direction (i.e. zoom out gesture zooms in and vice versa)

Minimum gesture duration (ms): This is the minimum duration for gesture detection in milliseconds (1/1000 of a second). Everything shorter than this is ignored completely. Increase if you gesticulate a lot and unintentionally activate gestures. Decrease if you want to be able to move/zoom faster.

Minimum move distance (pixels): This is the minimum distance for the move gesture. Everything smaller than this will be ignored. 40 pixels are about 1/8 of the depth image width. Decrease if you are standing far away from the Kinect. Increase if you gesticulate a lot and unintentionally activate move gestures.
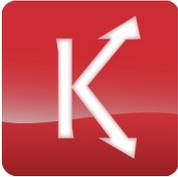
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Minimum zoom ratio: This is the minimum ratio at which the zoom gesture will activate. 1.4 means you must change the initial distance of both hands at least by a factor of 1.4 (either larger or smaller). Decrease if you want to activate zoom gestures with less movement of your hands. Increase if you have very long arms or gesticulate a lot.

Min. gesture zDepth difference (mm): This defines how far you have to put your hands in front of your body center for them to be recognized. Up to this depth you can freely move your hands in front of your body without activating gestures.

Control: Choose the executable to control (must have been started before Universal Remote). Many executables have multiple windows, test them one by one. If clicking on "Remote enabled" brings the window to the foreground, changes are it will work. If it does not, try the next window of the same executable.

Keycode left/right/zoom in/zoom out: In the professional version, you can choose arbitrary keys to send rather than the default settings.

Elevation: Adapt the elevation of your Kinect with this. For Universal Remote to work, it needs to see you fully. Check *Show Preview* if you are not sure. For *Near Mode* use a higher elevation and stand close to the Kinect.

Near Mode / Seated Tracking: This activates near mode and seated / upper body tracking. This feature only works with Kinect for Windows. You must have Kinect Runtime 1.5 installed, otherwise there will be an error message. In this case it is enough if your upper body and hands are visible in *Preview.* Gestures work exactly the same.