

### FingerCAD HD, FingerCAD WS, FingerCAD

#### FAQ - examples of use: "drawing procedures"

- Which is the correct version of FingerCAD for my device?

- *PORTABLE DEVICES (iPad, iPhone, iTouch):*

**FingerCAD** -> for iPhone, iTouch (for iOS 8.0 or later)

**FingerCAD HD** -> for iPad (iOS 8.0 or later)

**FingerCAD WS** -> for old devices: iPhone 4, 4s, 5, 5s, iTouch (iOS 6 or later - not compatible with iOS 8.3)

- *MAC:*

**FingerCAD PRO** -> for MAC OS X (OS X 10.9 or later)

### - How can i draw a POLYLINE using "LINE: ANGLE, LENGTH" tool?

#### *Settings:*

- 1) Choose "LINE: ANGLE, LENGTH" tool
- 2) Enable the POLYLINE tool pressing on "POLY" button --> ON (the first point of the next line will be joined automatically with the last point of the previous line drawn)
- 3) Write the line first point position (X,Y coordinate) using the device's keyboard into text fields "LINE: FIRST POINT POSITION" or touch the screen without dragging Your finger to set the touched X,Y position (*see also "How can i get the X,Y position of an object's snap point?"*)

#### *Drawing the polyline:*

- 4) Write the line length with the keyboard using "LINE: LENGTH" text field
- 5) Choose rapidly the line angular direction (0°, 90°, 180°, 270°) using the main directions buttons or specify a different angle using the "LINE ANGLE" control
- 6) Press the "INSERT" button to add a new line
- 7) Repeat many times the steps 4 (*set the LINE LENGTH*), 5 (*set the LINE ANGLE*), 6 (*add new line pressing INSERT button*) to draw the polyline

### - How can i get the X,Y position of an object's snap point?

- 1) Choose the "LINE: SNAP TO THE NEAREST CONTROL POINT" tool
  - 2) Touch the screen near an object's snap point (or control point) and raise the finger from the screen without dragging
- The system will find automatically for You the object's snap point (X,Y) position and write the found (X,Y) values into the text fields "LINE: FIRST POINT POSITION".
- Use these steps also to set the anchor (X,Y) position on an object's snap point.

### - How can i draw a POLYLINE using "LINE" tool?

#### *Settings:*

1) Choose "LINE" tool

#### *Drawing the polyline (as You do with pen and ruler):*

2) Touch the screen to specify the first point position of the line

3) Drag Your finger on the screen to draw the line (see the line length label that appear on the screen)

4) Raise the finger from the screen to confirm the line

5) Press on anchor button and repeat the steps 3 (*draw the line*), 4 (*confirm the second point of the line*)

*polyline, if the polyline is not ended*

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### - How can i connect two lines with a segment?

#### *Settings:*

1) Choose "LINE: SNAPS TO THE NEAREST CONTROL POINT" tool

#### *Draw the segment:*

2) Touch the screen near a snap point of the first line that has to be connected (the system will find automatically the nearest snap point of the line)

3) Drag Your finger on the screen until You are near to a snap point of the second line (the system will connect automatically the two lines with a segment)

4) Raise the finger from the screen to confirm

### - How can i close two walls with a corner?

#### *Settings:*

1) Choose "LINE: ANGLE OR WALLS CLOSING" tool

*Draw the angle:*

2) Touch the screen near a snap point of the first line that has to be closed with a corner

3) Drag Your finger until You are near to a snap point of the second line (the system will draw automatically the corner between the two lines)

4) Raise the finger from the screen to confirm

### - How can i draw a wall?

*Settings:*

1) Choose "LINE" tool and set "x2"

2) Set the wall thickness using "WALL(x2) THICKNESS" control

*Draw the wall:*

3) Touch the screen to specify the first point position of the wall

4) Drag Your finger on the screen to draw the wall (see the wall length label that appear on the screen)

5) Raise the finger from the screen to confirm the wall

### - How can i set the anchor position?

Touch the screen without dragging the finger to set the anchor X,Y position (the anchor position will be automatically updated by the system while You are drawing an object).

### - How can i mirror or mirror a copy of an object?

### *Settings:*

1) Choose "SELECTION RECTANGLE: ON" tool

*Select an object and mirror it:*

2) Use the "SELECTION RECTANGLE: ON" tool to select objects (described in "*How can I remove an object from cad area?*")

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3) Choose the X or Y axis to mirror the object respect to the chosen X or Y axis

4) Press the MIRROR button to mirror what You have selected or COPY MIRROR to mirror a copy of the selected objects

### **- How can I use "EDIT" tool with "ANCHOR" to specify the exact position for the second vertex of a cad object?**

After You have drawn a cad object, enable EDIT tool and choose "VLink", increase EDIT radius (only if it is necessary), touch and move the cad object vertex dragging Your finger on the screen near the position You want, specify the position (X,Y) of the anchor (using the text fields X,Y), press on keyboard DONE button to confirm the anchor position (see also "*How can i get the X,Y position of an object's snap point?*")

" to place the cad object vertex on an existing object's control point) and press the anchor button. The vertex contained into the EDIT AREA (defined by the EDIT RADIUS) will be moved in the specified position (X,Y position of the anchor or over the object's control point: joining the two lines). At the end disable the anchor tool pressing again the anchor button and disable EDITING to confirm the EDIT session.

The edit session can be aborted/resetted (undo for EDIT session) pressing on "ERASE LAST" button (button with clock icon).

Recalculate the modified object's snap points pressing the button with four vertices (near "Lines/Filled" segment control, into the "Settings" window).

### **- How can I place the first cad object vertex in the position I need?**

You have to use UNDER FINGER PREVIEW WINDOW.

Select a CAD primitive (such as a line) and touch the screen (without dragging your finger). The position of touch under finger will be displayed upper left in the screen into the preview window. it give you the ability to see the exact position of the first vertex for the chosen CAD primitive, under your finger.

if the position displayed into the PRIVIEW WINDOW is not correct You can raise your finger from the screen and abort the current operation (no one CAD object will be drawn).

if the position displayed is correct drag your finger on the screen (to draw the CAD primitive you have chosen) and raise your finger to confirm.

Also, You can use ANCHOR tool to specify the first cad object vertex position manually:

- write (X,Y) anchor position and confirm with the keyboard "return" button or touch the screen in the desired position and raise the finger without dragging (*see also "How can i get the X,Y position of an object's snap point*

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- enable anchor, pressing on anchor button (a red circle will be displayed in the specified X,Y position)

- touch and drag Your finger on the screen (in any position)

The cad object will begin in the position of anchor and will end where You raise Your finger from the screen.

### - How can I draw small parts more accurately?

To draw small parts (for example a LINE from 1,2 to 3,4) You have to set the GRID SNAP to 1 pressing the G.SNAP button repeatedly. When You are drawing a cad object You can use the "zoom in" tool to be more accurate.

For very small parts use the "LINE: ANGLE, LENGTH" tool or disable the grid (from settings window).

### - How can I remove an object from cad area?

To erase an object using the "ERASER" tool first of all You have to select a cad object into the cad area.

To select an object You have to use the "SELECTION RECTANGLE: ON" tool:

- "multiple selection rectangle" selection procedure: draw multiple selection rectangles to select more objects

- "selective tap selection" selection procedure: tap an object to select or deselect the touched object; if multiple objects exist in the touched position repeat the tap action to select the second or third or fourth (etc...) object in the position of touch

You have to select at least one control point (snap point) of an object to select it.

The selected objects will be displayed with yellow dotted lines.

At the end You can press the "ERASER" button to erase the selected cad objects.

If You need to erase the last drawn cad object You can simply press the button with clock icon; the last drawn cad object will be removed from the cad area.

If EDIT or SELECT(copy, move, scale, rotate, mirror, copy mirror) are enabled, the button with clock will remove the entire edit, copy, move, scale, rotate, mirror, copy mirror session (it restores the initial state of an edit, copy, move, scale, rotate, mirror, copy mirror session - UNDO for editing session).

You can remove the last drawn objects using the UNDO button (press on REDO button to cancel the UNDO action).

### - How can I move, copy, scale, rotate the drawn cad objects?

To move, copy, scale, rotate the drawn cad objects You have to:

1) Use the "SELECTION RECTANGLE: ON" tool to select objects (described in "How can I remove an object from cad area?")

*COPY:*

2) choose an axis (X or Y) to copy along to the selected axis

3) set the COPY DISTANCE (if it is necessary use the "copy distance action multiplier" - x1,x3,x15 -)

4) press on COPY button to copy the selected objects

*MOVE or SCALE or ROTATE:*

2) set the MOVE DISTANCE (if it is necessary use the "move distance action multiplier" - x1,x3,x15 -)

3) press on the arrow button to move the selected object in the direction shown by the button's arrow

### **- How can i draw objects using dotted lines?**

Set ALPHA (the transparency) to 0 (zero) to draw objects using dotted lines.

### **- How can i draw filled objects with a specific color and transparency?**

After chosen the drawing tool, press on "Filled" tool in the "Settings" window, choose the color and the transparency and draw the filled cad object (colored, semitransparent or opaque).

### **- How can i draw freehand objects?**

To draw freehands objects disable the "SNAP TO GRID" --> OFF and choose the "FREEHAND



DRAWING" tool. Draw or write what You want like You do with a pen.

### **- Can i draw 3D objects with FingerCAD?**

Yes, with FingerCAD You can draw 3D models/objects using multilayers and multi floors. You can also move or copy objects from one layer or floor to another one (at different height).

Also, using the app Finger3D You can model the 3D objects created with FingerCAD (like You do with a common 3D modeling software like Maya3D or Blender).

FingerCAD and Finger3D can exchange OBJ files: FingerCAD --> OBJ 2D and 3D --> Finger3D (for 3d modeling, antialiasing, add ground and sky textures, add 3d objects like people, rendering, etc...).

### **- How can i draw my design over an existing design saved in a PDF file format?**

To import the PDF design in the FingerCAD design area (as background of Your design) You have to use pdfManager (HD) app together with FingerCAD (HD) app. Using pdfManager (HD) open the .pdf saved CAD design, zoom the part of interest of the .pdf saved design, press the PDF to IMG button (button icon: "diskette with photo camera and green arrow"). Using FingerCAD (HD) press on the "image frame" icon button and select the .pdf saved design from the device's photo albums, use the IMAGE SCALER control to set the desired SCALE factor for the background .pdf image (use an existing .pdf saved design measure to set the right IMAGE SCALER value). Now You can draw Your CAD project over the .pdf saved design (or over a part of it).