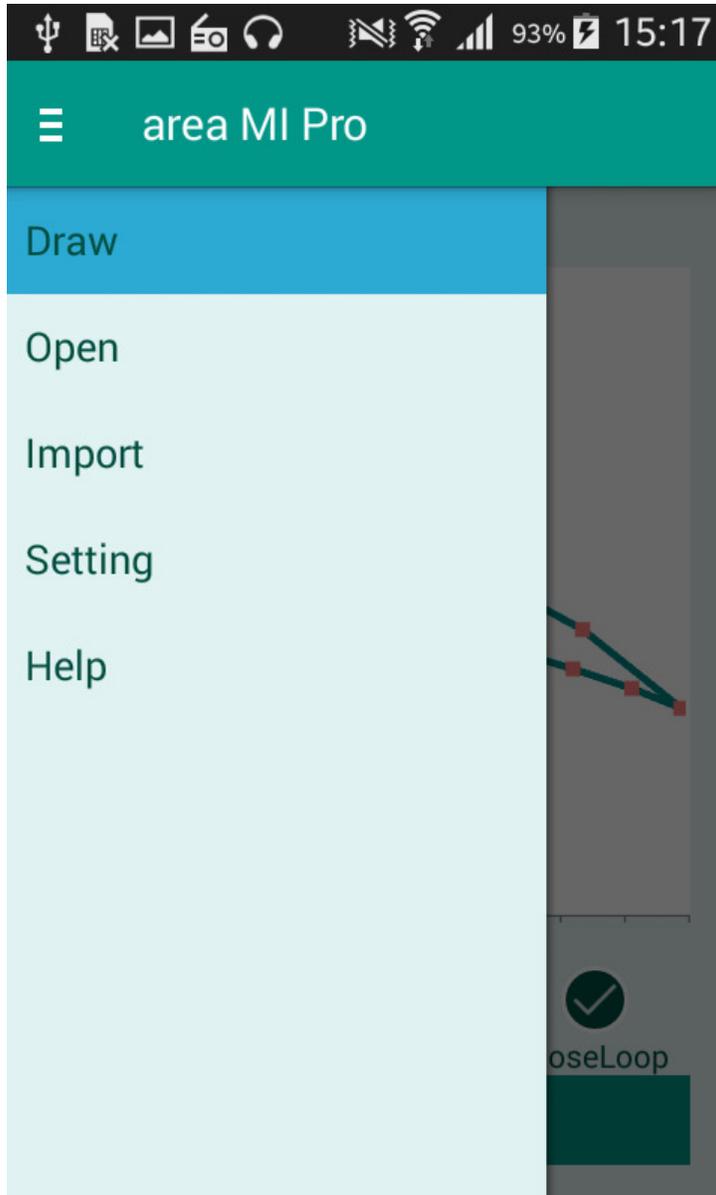


Area Moment of Inertia –Pro

1) Menu



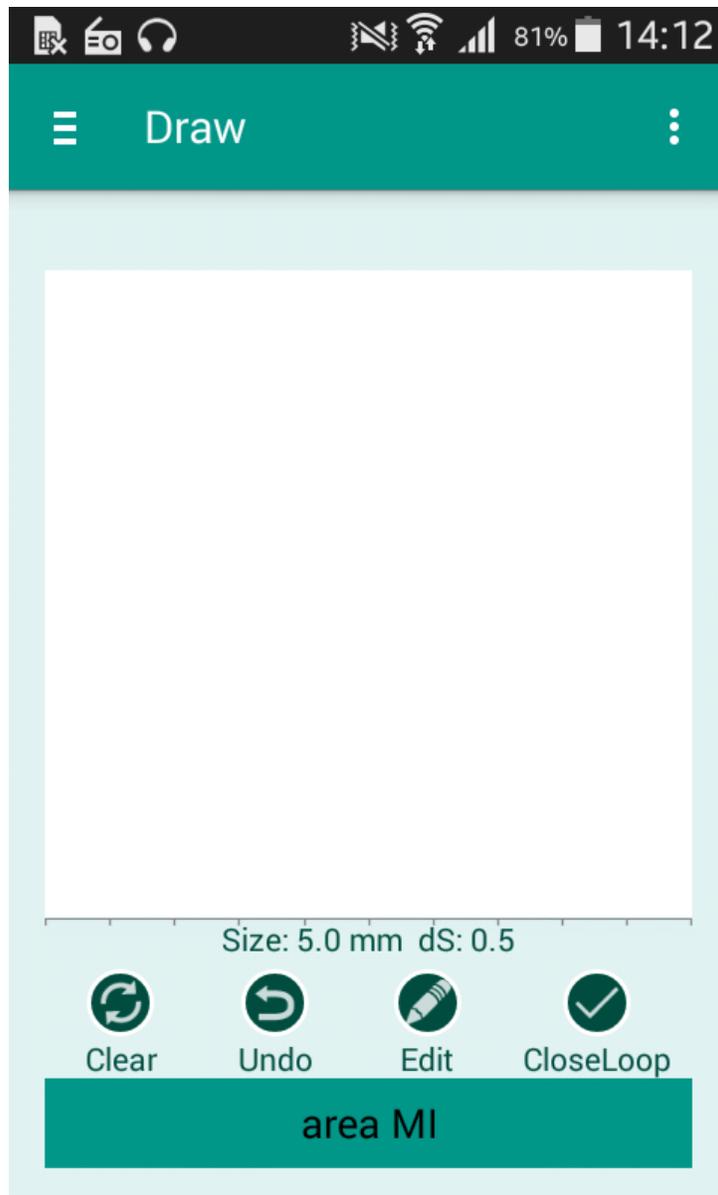
Draw: The view on which we can touch the screen to draw a shape or even tap on the screen to draw. It has functionalities like Clear, Edit, Undo, Close Loop.

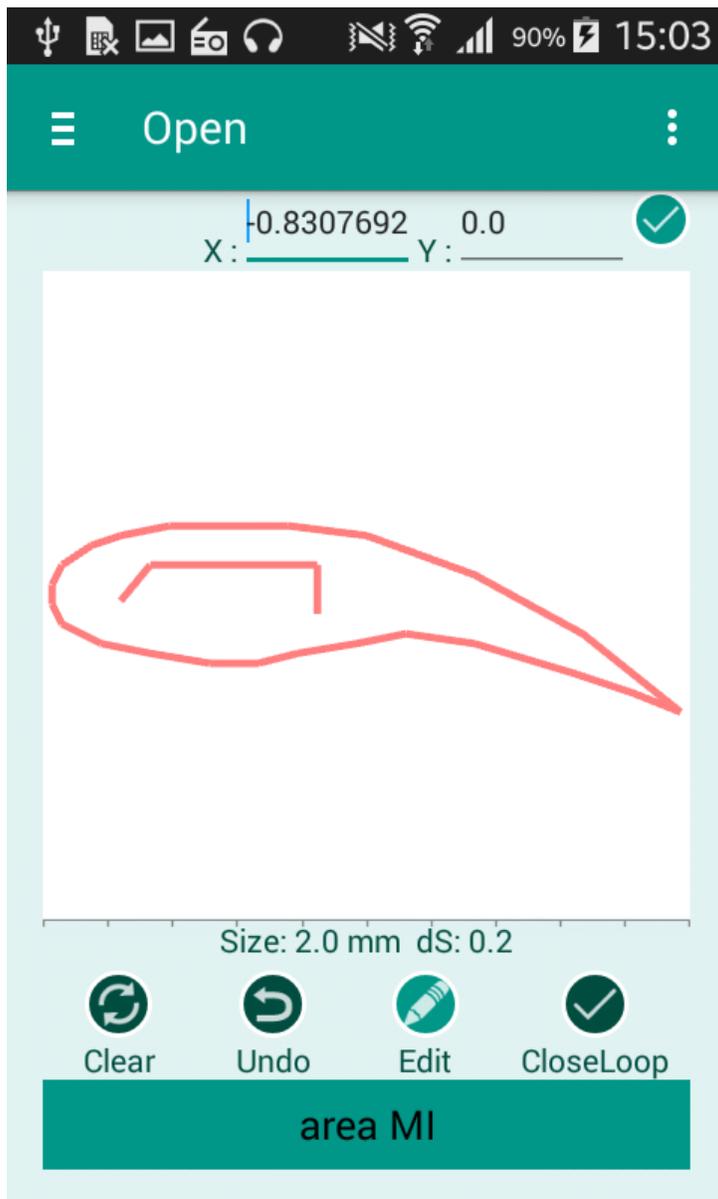
Open: It consist samples of geometry and the geometry which we save using save function in result view.

Import: It's functionality is to import the X & Y co-ordinate from *.csv file. The input X & Y co-ordinate should be within a range of scale which u input before importing file.

Settings: It consists of all the settings used in the app, detailed features will be explained later in doc.

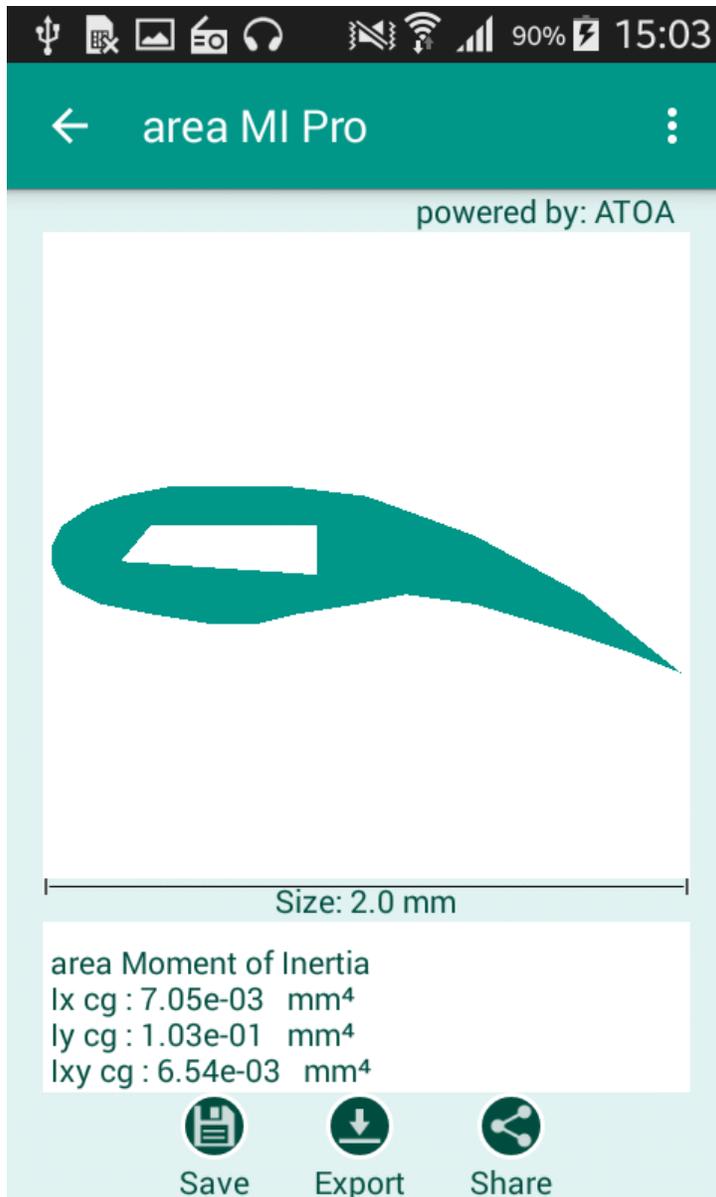
2) Draw





- * Touch or Tap to draw vertex of the geometry.
- * Draw free flow geometry by continues touch on the screen.
- * Touch/Tap/Draw in a clockwise or counter clockwise pattern to add the vertex points of non-intersecting outer boundary of your geometry.
- * If required, add the hole or cut inside the outer boundary, by tapping vertex points of the non-intersecting inner boundary.
- * Tap areaMIPro to calculate the sectional properties.
- * Use Draw: Clear, Undo, Edit, CloseLoop to manipulate your drawings.
- * Use Edit button and then Tap a vertex point to enter X, Y coordinates.
- * You can also touch and drag a vertex in edit mode.
- * Use Clear, Undo, Edit and CloseLoop buttons to finalize your shape.
- * Click Calculate MI to prediction the sectional properties.
- * The Results page will show the final shape, Area, moment of inertia and coordinate properties.
- * You can go back to edit the geometry if required.

3) Results



AreaMIPro Results

- * Area Moment of Inertia properties
- * Area Moment of Inertia Ix cg
- * Area Moment of Inertia Iy cg
- * Area Moment of Inertia Ixy cg

Sectional properties

- * Area A

Geometry co-ordinate details.

- * X.. Y..

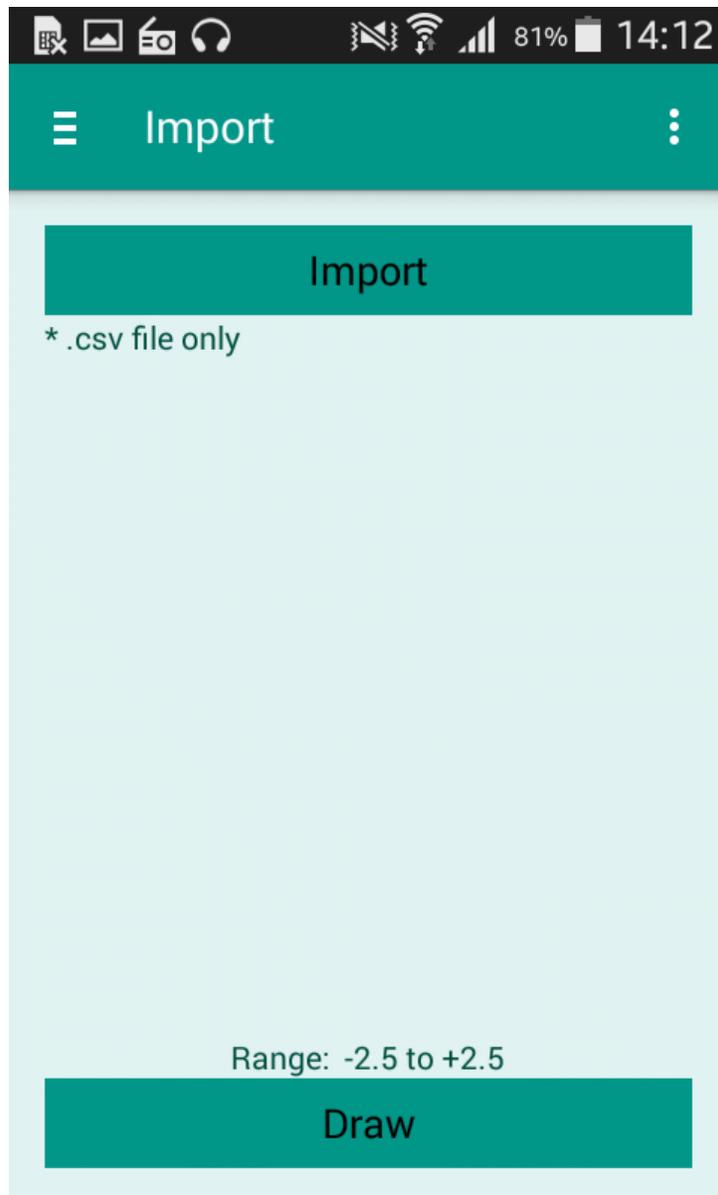
Functionalities:

Save: It saves the geometry co-ordinate in internal database, which can be opened using Open menu.

Export: It exports the *.png image of the geometry and X,Y co-ordinate in text files to the phone memory.

Share: The *.png image of the geometry and X,Y co-ordinate in text files are available for share.

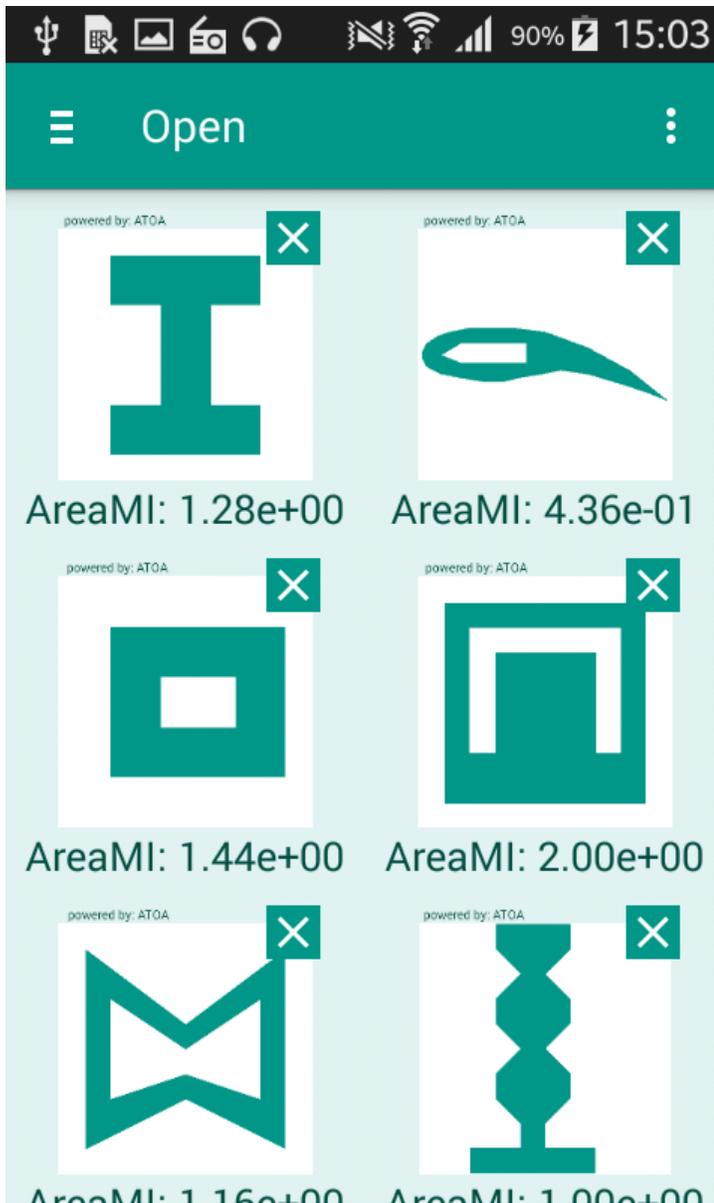
4) Import



* You can import X Y coordinated of your geometry in *.csv format file only.

* Use spreadsheet editor or other tools to generate your *.csv file.

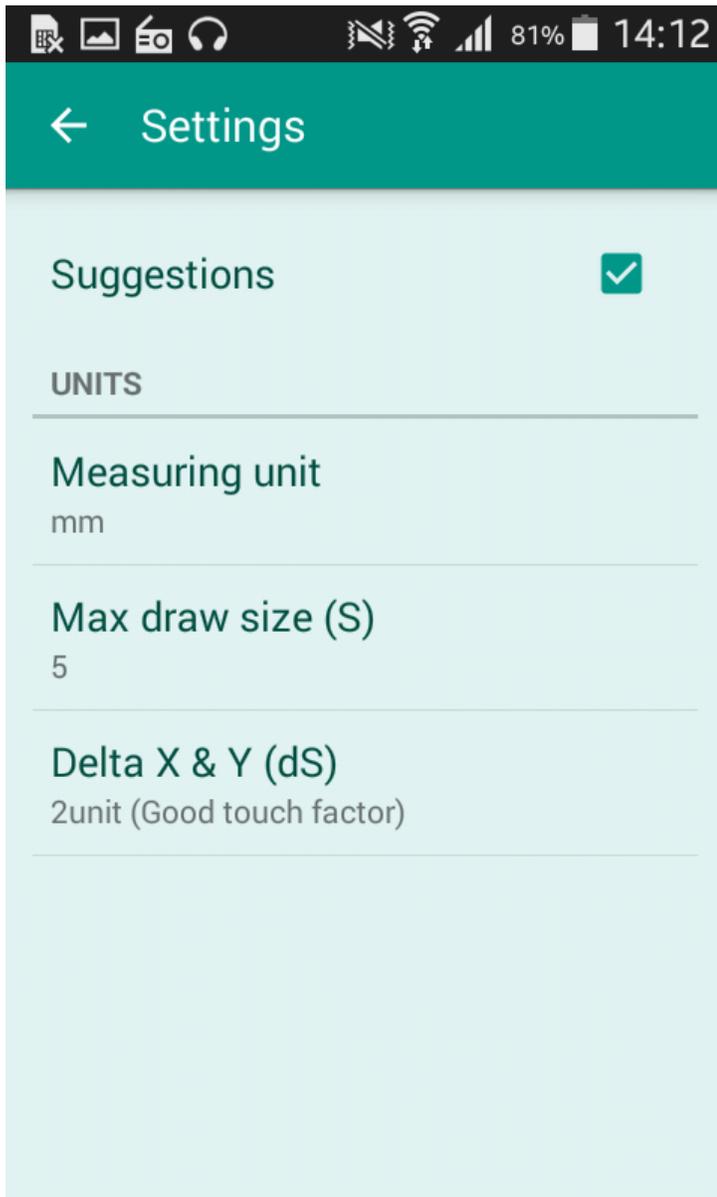
5) Open



* Open the saved areaMIPro files.

* Tap the saved files to open in draw mode .

6) Settings



- * Enable settings: Check for auto suggestions/tips.
- * Measuring Unit: Tap and select mm or inch
- * Max Draw Size (S): Set this to any size. Set to the maximum size of your shape.
- * Delta X and Y (dS): Set Snap size and touch factor sensitivity to edit the vertex points.

Tips

- * For curved geometry, use multiple straight line segments.
- * Draw a sample shape and then edit by tapping the vertices or x, y coordinates.
- * Max draw size is full size of the window with origin at the center.
- * Define Clockwise or counter clockwise vertices/ boundary definition.
- * Close the geometry before the calculations.
- * * Crossing of boundary is not allowed and the results should not be used.

Note

- * The results reported by app are valid only for non-intersecting outer and a non-intersecting inner within the outer.