HOME

FUNCTION-A FUNCTION-B FUNCTION-C FUNCTION-D FUNCTION-E FUNCTION-F FUNCTION-G FUNCTION-H FUNCTION-I FUNCTION-J

WORKSPACE

FUNCTION-A

X POSITION

93.7

Y POSITION

93.7

Z POSITION

93.7

CUT STYLE

INSIDE   OUTSIDE   INFILL

LENGTH

93.7

WIDTH

93.7

SIDEBAR

EXPORT   ADD TO SEQUENCE

1   2   3   4   5   6   **KEYBOARD** 9   0   .   +   −   ⌫   ⏎

OVERALL STRUCTURE

NAVBAR:
- ➢ Contains HOME and FUNCTIONS buttons
- ➢ Note: Among FUNCTIONS' screens, only need to work on FUNCTION-A screen for now.
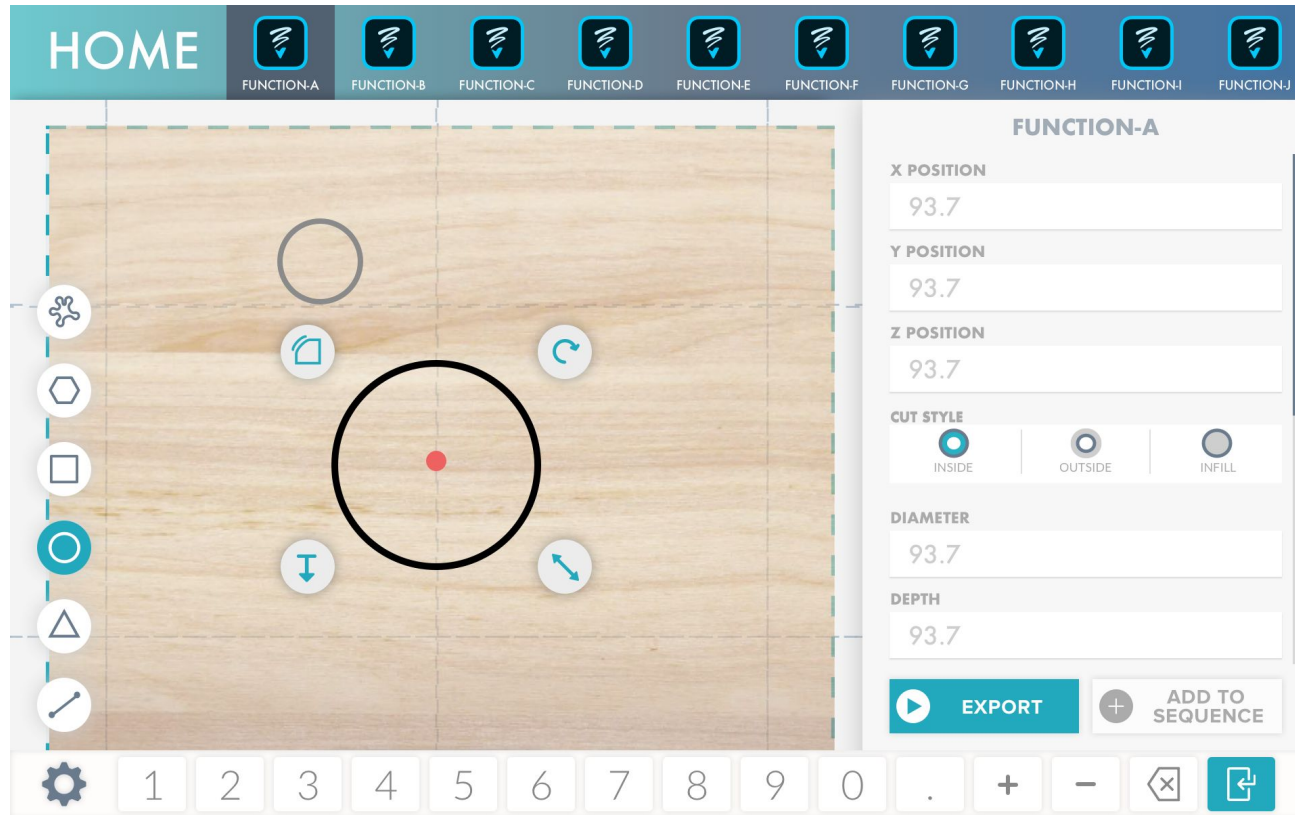
WORKSPACE:
- ➢ User moves/adjusts shapes here
- ➢ It has an invisible grid (so shape movement/adjustment should follow grid resolution).
- ➢ User can zoom in/out

SIDEBAR:
- ➢ User can input/view details here

KEYBOARD:
- ➢ For user to input numbers

FUNCTION-A | FUNCTION-B | FUNCTION-C | FUNCTION-D | FUNCTION-E | FUNCTION-F | FUNCTION-G | FUNCTION-H | FUNCTION-I | FUNCTION-J

FUNCTION-A

X POSITION

93.7

Y POSITION

93.7

Z POSITION

93.7

CUT STYLE

INSIDE | OUTSIDE | INFILL

DIAMETER

93.7

DEPTH

93.7

▶ EXPORT | + ADD TO SEQUENCE

1 2 3 4 5 6 7 8 9 0 . + − ⌫

Function-A screen

When Function-A screen first opened
  ➢ Operation shape shown (let's call it CURRENT_SHAPE) should be a duplicate/copy of the last Operation shape that was created by User on any Function screen in the app.

CURRENT_SHAPE's parameters' values are shown in sidebar.

CURRENT_SHAPE can be adjusted using the four adjustment buttons around it.

In case User wants to replace the CURRENT_SHAPE with another, then…

--OPTION 1) User can press Settings button and select a different type of shape (here, a Circle).

--OPTION 2) If user press-holds another existing shape's outline seen on screen…
  ➢ Then a duplicate of that other shape becomes CURRENT_SHAPE (i.e., all the parameters' values get imported to the new one)

HOME

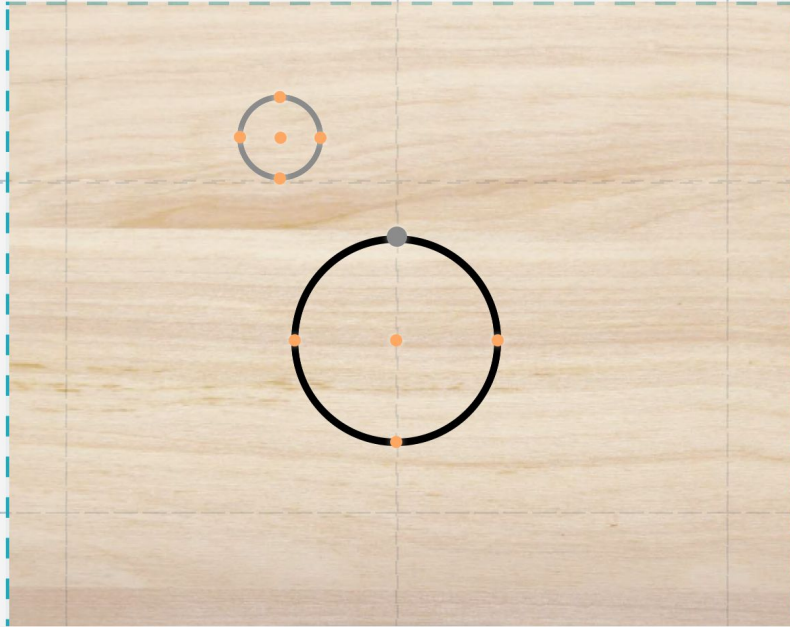FUNCTION-A | FUNCTION-B | FUNCTION-C | FUNCTION-D | FUNCTION-E | FUNCTION-F | FUNCTION-G | FUNCTION-H | FUNCTION-I | FUNCTION-J

FUNCTION-A

X POSITION

93.7

Y POSITION

93.7

Z POSITION

93.7

CUT STYLE

INSIDE | OUTSIDE | INFILL

DIAMETER

93.7

DEPTH

93.7

▶ EXPORT | ➕ ADD TO SEQUENCE

1 2 3 4 5 6 7 8 9 0 . + − ⌫ ↪

Function-A screen

At any time, User can drag the outline of CURRENT_SHAPE to move it anywhere.

To move-snap to another shape:
- ➢ User double-presses some place on CURRENT_SHAPE's outline.
- ➢ Then the nearby key-point of CURRENT_SHAPE gets highlighted in Grey.
- ➢ Also, key-points of all other shapes are shown in Orange.
- ➢ When User presses another shape's key-point, then CURRENT_SHAPE selected key-point is moved to the other shape's selected key-point (so CURRENT_SHAPE is moved).
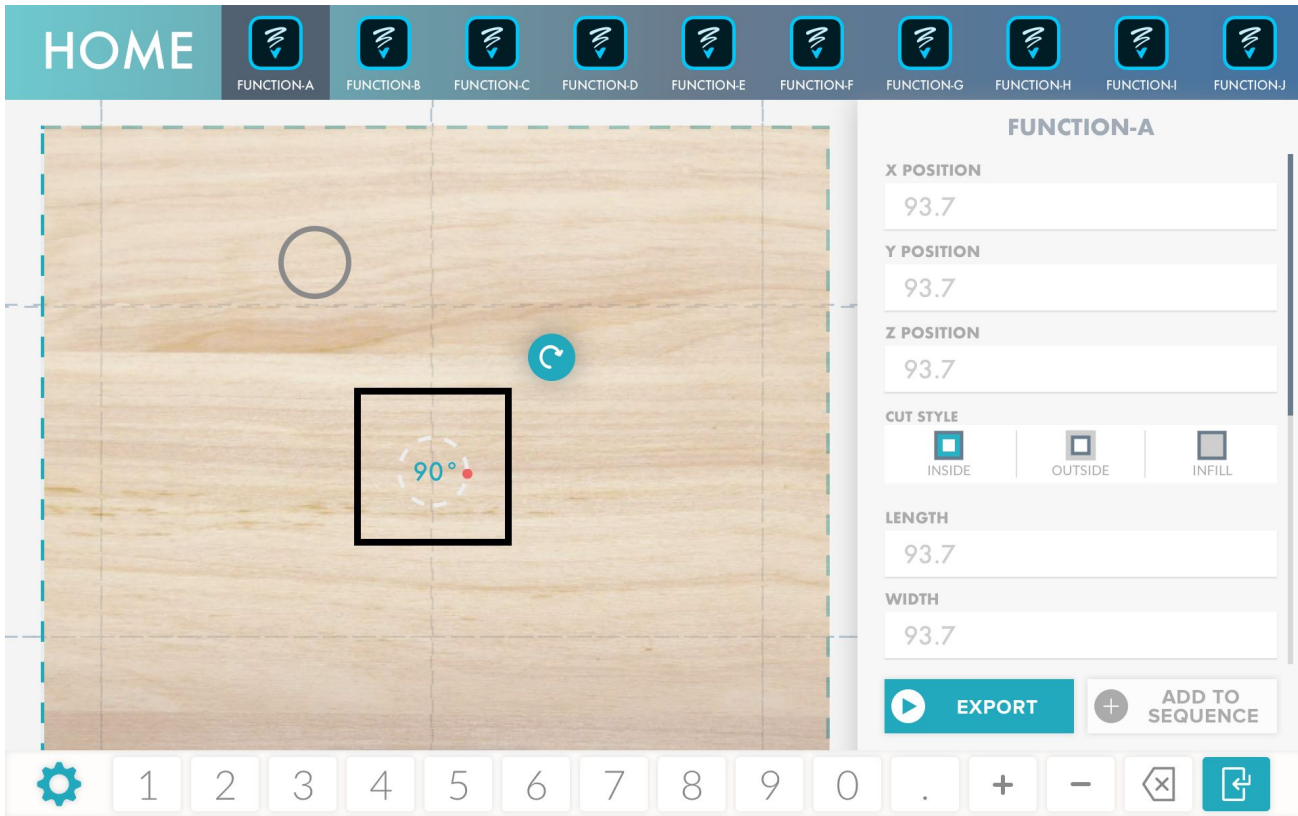
HOME

FUNCTION-A

X POSITION

93.7

Y POSITION

93.7

Z POSITION

93.7

CUT STYLE

| INSIDE | OUTSIDE | INFILL |

LENGTH

93.7

WIDTH

93.7

▶ EXPORT

+ ADD TO SEQUENCE

1 2 3 4 5 6 7 8 9 0 . + − ⌫
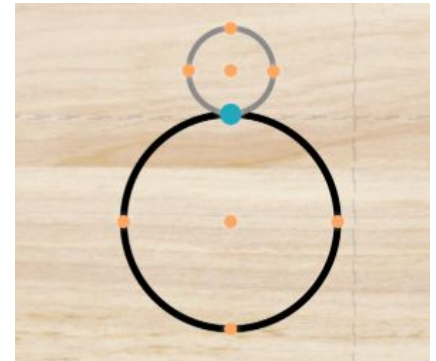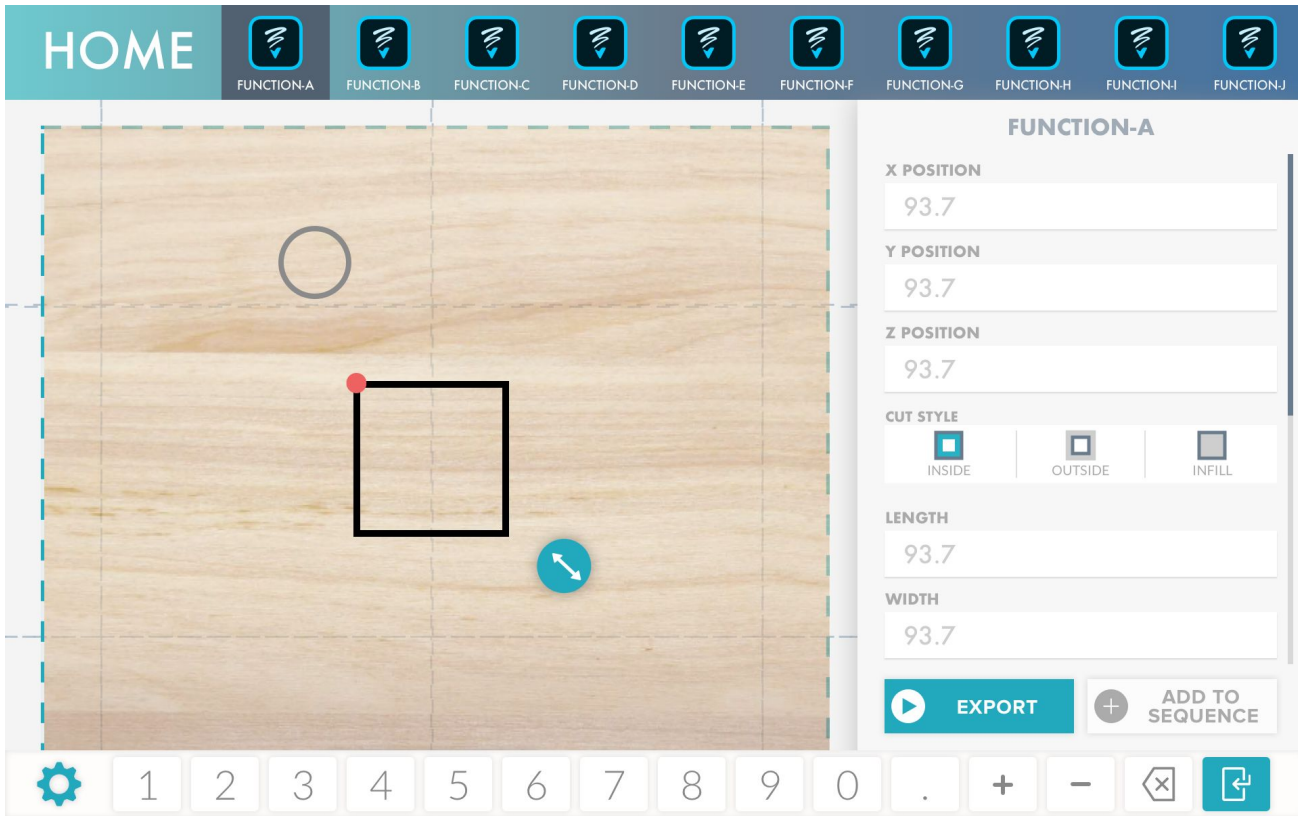
Function-A screen

To resize CURRENT_SHAPE:

User holds the RESIZE button and pulls in any direction.

HOME

FUNCTION-A FUNCTION-B FUNCTION-C FUNCTION-D FUNCTION-E FUNCTION-F FUNCTION-G FUNCTION-H FUNCTION-I FUNCTION-J

FUNCTION-A

X POSITION

93.7

Y POSITION

93.7

Z POSITION

93.7

CUT STYLE

| INSIDE | OUTSIDE | INFILL |

LENGTH

93.7

WIDTH

93.7

▶ EXPORT

+ ADD TO SEQUENCE

90°

1 2 3 4 5 6 7 8 9 0 . + − ⌫ ↵

Function-A screen

To rotate CURRENT_SHAPE:

User holds the ROTATION button and drags to any angle around the shape.

FUNCTION-A | FUNCTION-B | FUNCTION-C | FUNCTION-D | FUNCTION-E | FUNCTION-F | FUNCTION-G | FUNCTION-H | FUNCTION-I | FUNCTION-J

FUNCTION-A

X POSITION

93.7

Y POSITION

93.7

Z POSITION

93.7

CUT STYLE

| INSIDE | OUTSIDE | INFILL |

LENGTH

93.7

WIDTH

93.7
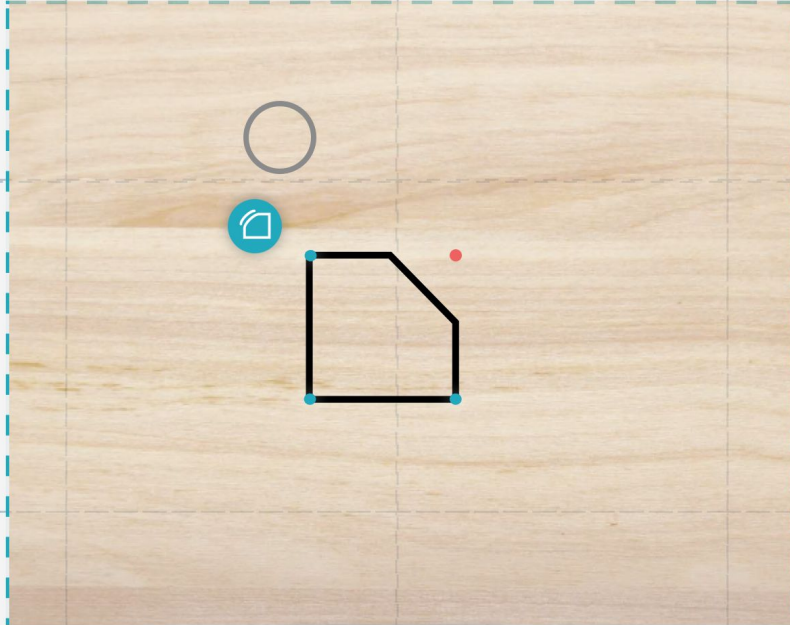
▶ EXPORT

+ ADD TO SEQUENCE

⚙ | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | . | + | − | ⌫ | ⏎

Function-A screen

To create a chamfered/rounded-corner on CURRENT_SHAPE:

On specific points:
➢ User presses the CORNER button
➢ User presses one or more points, and then does the usual adjustment.

For all points together:
➢ User holds the CORNER button and pulls either inward (for chamfer) or outward (for rounded corner) from the shape.

FUNCTION-A
FUNCTION-B
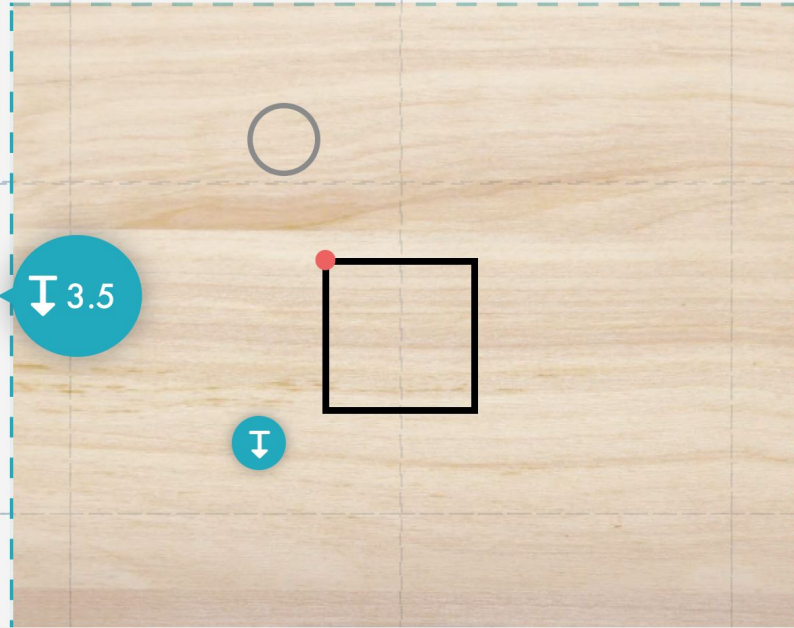FUNCTION-C
FUNCTION-D
FUNCTION-E
FUNCTION-F
FUNCTION-G
FUNCTION-H
FUNCTION-I
FUNCTION-J

FUNCTION-A

X POSITION

93.7

Y POSITION

93.7

Z POSITION

93.7

CUT STYLE

INSIDE | OUTSIDE | INFILL

LENGTH

93.7

WIDTH

93.7

EXPORT

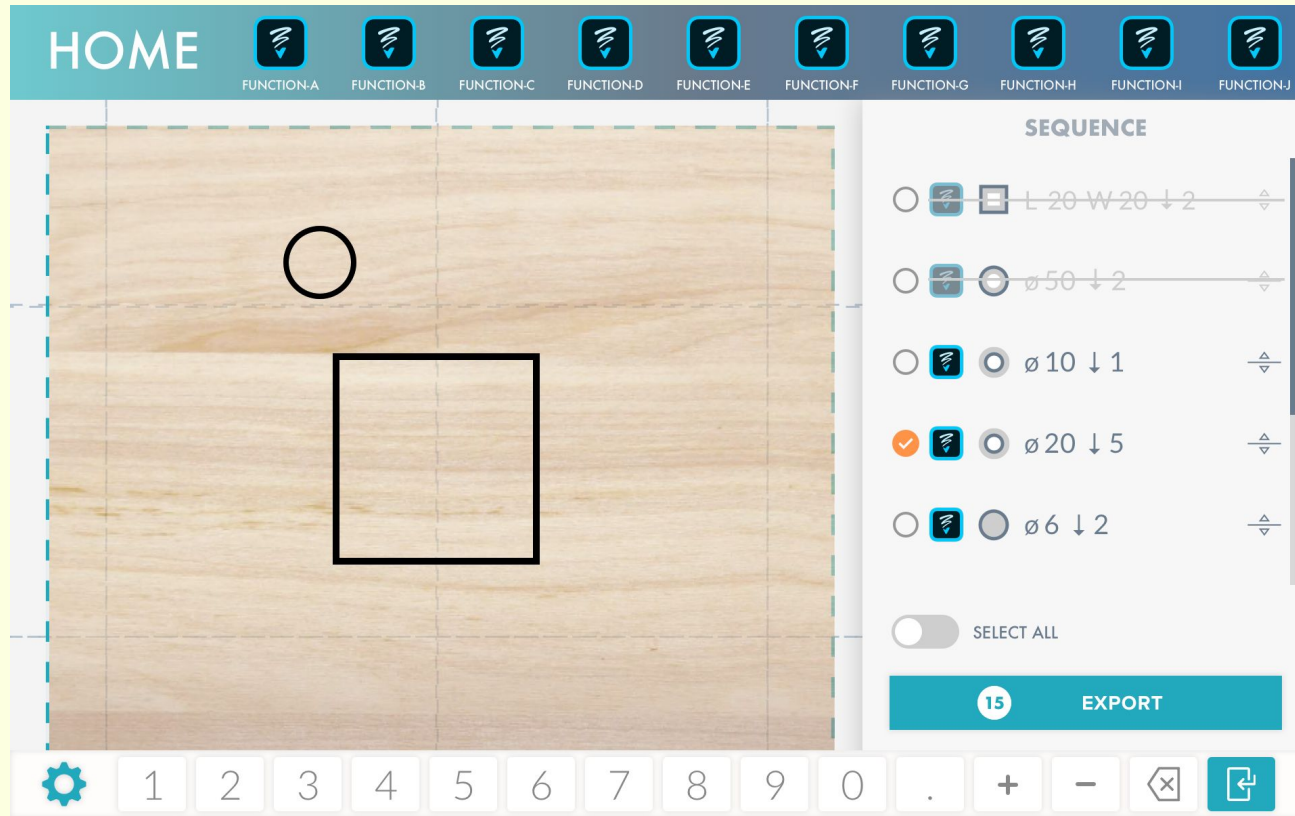ADD TO SEQUENCE

T 3.5

1 2 3 4 5 6 7 8 9 0 . + − ⌫ ↪

Function-A screen

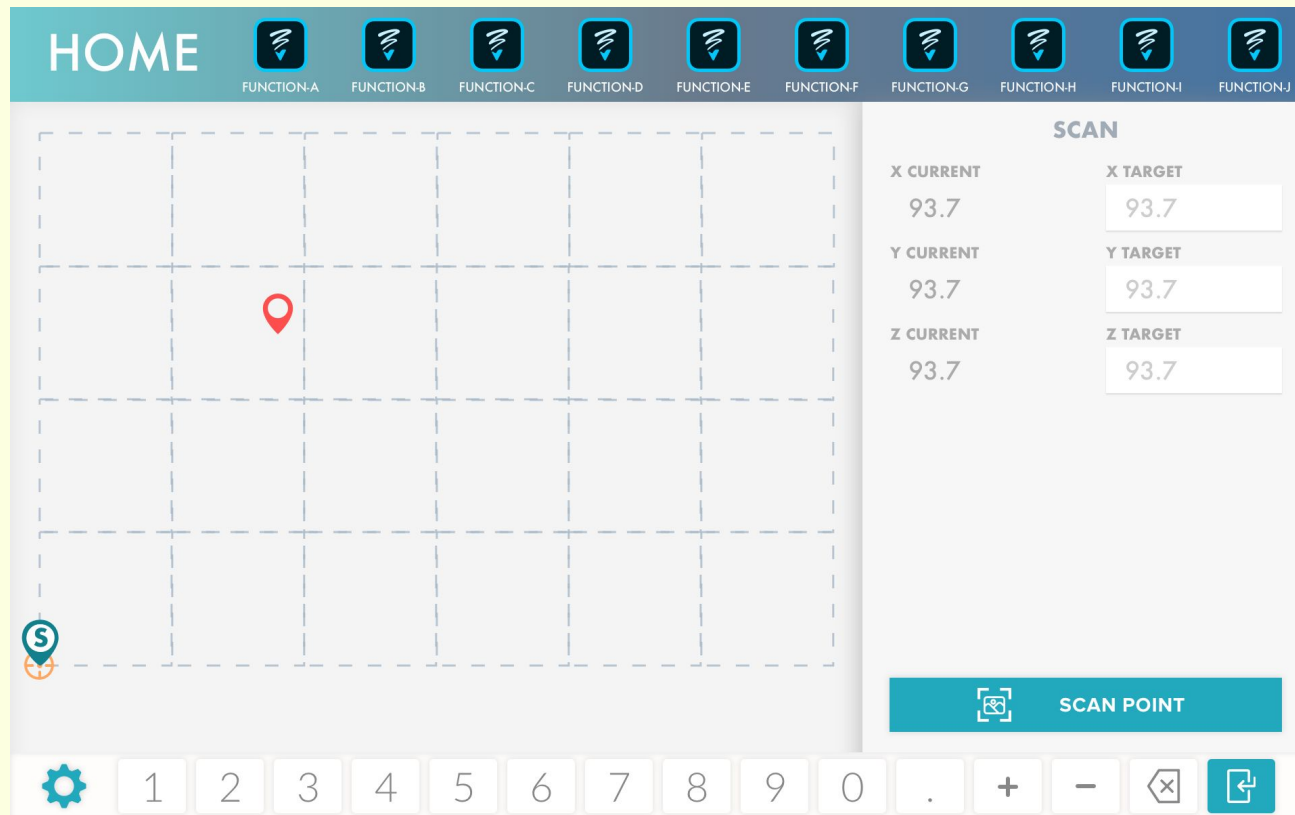To change Depth parameter (only numeric value, no shape change) of CURRENT_SHAPE:

➢ User presses the DEPTH button
➢ Workspace shows vertical slider on left, which User can adjust

HOME

| FUNCTION-A | FUNCTION-B | FUNCTION-C | FUNCTION-D | FUNCTION-E | FUNCTION-F | FUNCTION-G | FUNCTION-H | FUNCTION-I | FUNCTION-J |

SEQUENCE

○ 🔲 L 20 W 20 ↓ 2

○ ⊘ ø 50 ↓ 2

○ ◉ ø 10 ↓ 1

✅ ◉ ø 20 ↓ 5

○ ⚪ ø 6 ↓ 2

⚪ SELECT ALL

15 EXPORT

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | . | + | − |

HOME screen

Sidebar: Sequence shows collection of all Operations created by user (When user presses "Export" or "Add to Sequence" buttons in FUNCTION-A screen's sidebar).

—
NEXT: If user does a press-hold at any point on the Workspace in HOME screen, then…

HOME

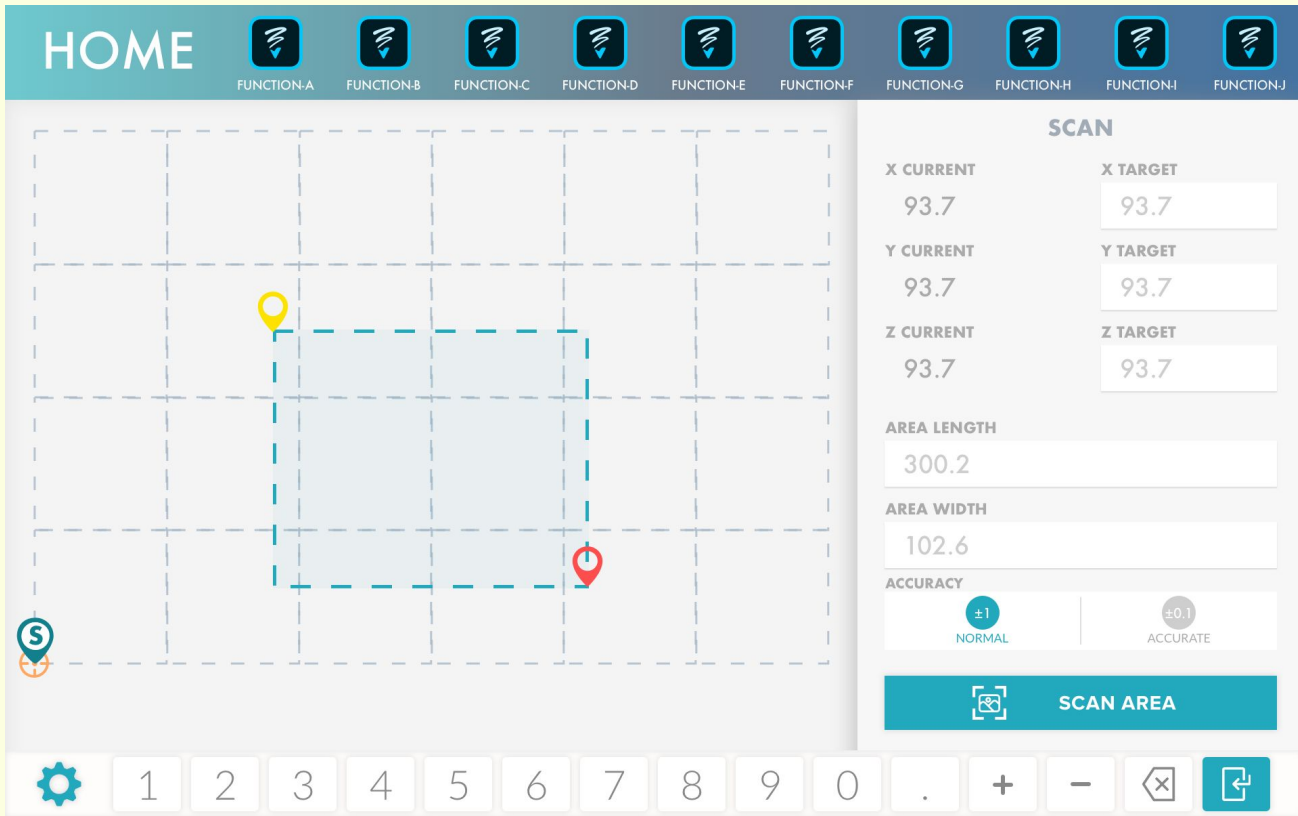| FUNCTION-A | FUNCTION-B | FUNCTION-C | FUNCTION-D | FUNCTION-E | FUNCTION-F | FUNCTION-G | FUNCTION-H | FUNCTION-I | FUNCTION-J |

SCAN

X CURRENT	X TARGET
93.7	93.7

Y CURRENT	Y TARGET
93.7	93.7

Z CURRENT	Z TARGET
93.7	93.7

SCAN POINT

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | . | + | − |

If User has chosen two points (Yellow and Red markers), then Workspace shows a dashed box between the user's chosen points.

Sidebar shows values for that box, and button name is updated to SCAN AREA.

—
NEXT: If user presses SCAN AREA button, then…

HOME
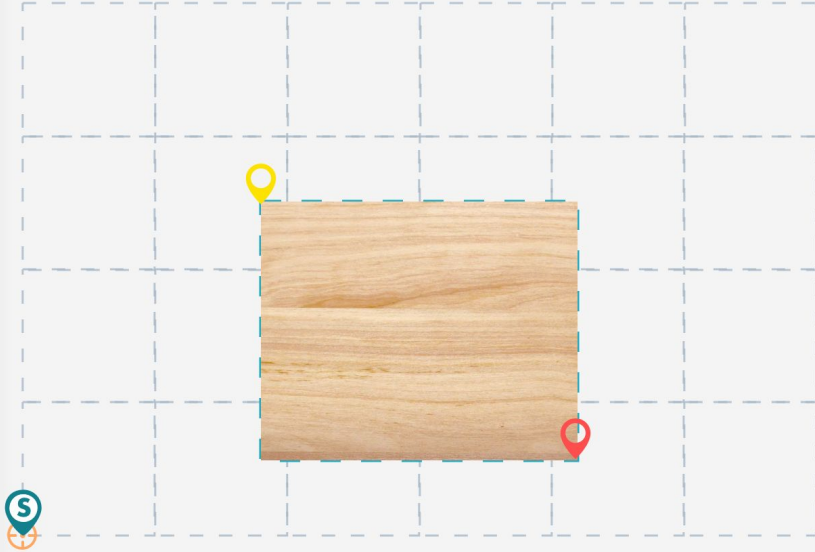
SCAN

Completed successfully.

BACK TO HOME

CLEAR SCAN

1 2 3 4 5 6 7 8 9 0 . + −

HOME screen

...Then Workspace shows an image inside the box.

Sidebar says "Completed successfully".