

# Grid:

- 10cm small square. 100cm big square
- Navigation in the workspace is performed with the mouse.
- LMB click and drag on the grid move.
- Scrolling the mouse wheel up zoom in. Scrolling the mouse wheel down zoom out.
- All wall lengths remain visible at all times
- Pressing the mouse wheel and move mouse move\*
- Button center view\*
- Walls if near to lines are attached (magnetic) to them\*
- When an enclosed space with walls is created, a solid-colored floor appears. The user can also see the area of the space and the ceiling height, which can be adjusted by right-clicking or double-clicking with the left mouse button\*





#### Tools:

- Wall, Round wall, window, door, empty door, archway
- Additional tools: undo\*, redo\*, delete element tool, delete all
- LMB select tool in left interface. User must understand somehow, that tool is selected now
- When selecting a tool, a small interface appears allowing the user to choose parameters of each tool (thikness, height, etc.). The interface disappears when the tool selection ends.
- LMB drag and draw start creating a wall. Simultaneously with the creation, the user immediately sees the wall thickness and the length, which are updated in real time. Walls are attached to lines on the grid. Doors and window are attached to walls.
- After creating one line, the tool remains active for the user. RMB on canvas unselects it.
- There must be NO space between connected walls on 3d
- A single LMB click on the wall reveals 3 key points, 2 of which are located at the edges and one in the middle. Dragging the edge points allows the user to change the wall's length along one axis along the wall.
- The middle point allows moving the wall only in directions perpendicular to it.
- RMB opens a menu where the user can choose the thickness and length of the wall, as well as the option to delete the wall
- If another wall was connected to the edge point, moving it will adjust both walls simultaneously along both the x and y axes without restriction, but with snapping to small values along the X and Y axes. When creating a new wall, the user should have a connection with the walls already drawn - a slight snap or, in other words, a magnetic effect at short distances ~10 cm\*
- A small square piece of the tool attaches to the mouse cursor\*
- There should also be snapping with markings at the edges of the walls, as indicated in the left and right picture\*



### Window and Doors:

- When hovering the cursor with the window over a wall, the window rotates accordingly and snaps to the wall, allowing the user to place it in the desired location. All information about the window is displayed next to it. This includes the width, height of the window, and height from the floor
- Doors and windows cant be wider then walls
- Windows and doors on rounded wall are short, or can be rounded
- When clicking with the LMB, 3 points appear. The 2 edge points allow the user to adjust the width of the window, while the central point allows the window to be moved along the wall \*



## Furniture

- A list of categorized furniture icons with names at the left screen
- When clicking icon, a list of 3d presets pictures of category appears above names
- You can DnD picture to 2d canvas, it becomes icon ???
- Icon can be rotated, deleted on 2d an 3d, can apply image to an object same as to walls
- When clicking with the LMB, 3 points appear. The 2 edge points allow the user to adjust the parameters of the furniture ???
- ??? need to understand, how to adjust furniture easily, on 3d or on 2d, or both



### User profile, Promt and Style

- Some fixed modal window to apply promt and select ONE preset style like "barocco, classic, neo-futurism, etc..."
- Saved together with generated pictures
- Icon of user profile somewhere and small user modal/page or just subscribe \*
- All users orders(tasks) are saved to Strapi or some other headless cms\*

### **Camera icon and main functional**



- When user thinks, that design is finished, he can drag and drop camera icon
- While dragging and dropping, he sees what render view he will get, what perspective is
- When camera is set, button "RENDER" becomes active, before is not active
- Render output is: low poly 2d picture of 3d perspective, depth map, mask model, promt text and selected style
- Everything saved to the server/computer
- Make registration, authentication, user profile\*
- Everything saved for the user in DB\*