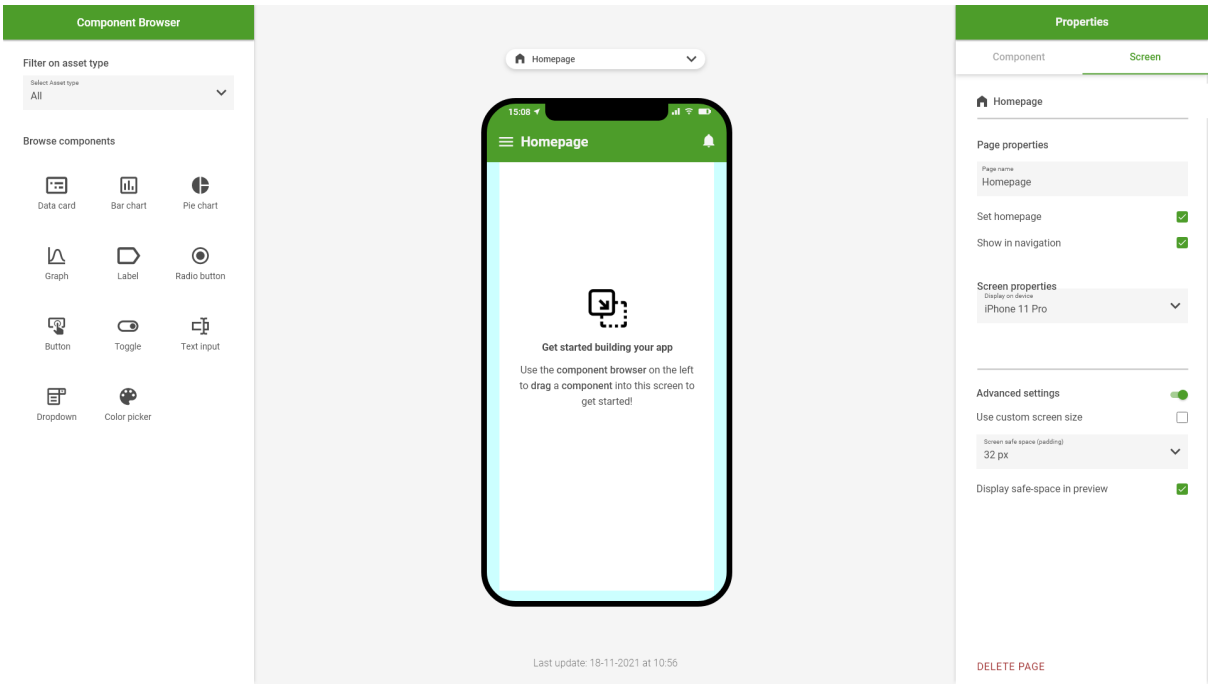
Advice document

Visual Designer

openremote

Design

After we had done multiple user tests, this is the latest design we made.



Overtime, we made small improvements on the design based on feedback we have gotten. The biggest being cleaning up the right sidebar, as this had gotten cluttered. Also, the addition of the text and a popup that lets the user know that they can drag and drop stuff onto the preview in the middle, as that was one of the problems our participants ran into.

Possible additions we haven't looked into or haven't got time to implement that could be a nice addition were:

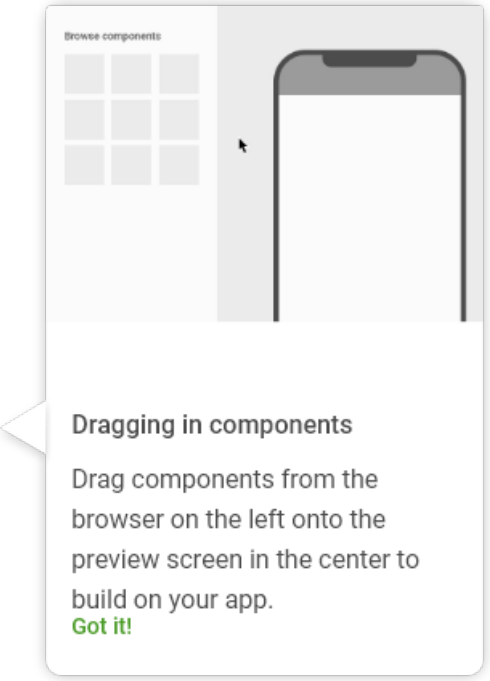
- **A right click menu**
  The idea behind this is to move some of the options from the right sidebar into here, with two different right click menu's, one for right clicking a specific component and one general one when right clicking on the preview grid itself.

- **Sorting could be changed**
  Sorting the components was something we included early on in the designs and was changed many times. As the amount of components grows this could be changed to include more filter options.

- **More interactivity could be moved to the preview**
  As pointed out a few times during presentations and some participants of user tests, some of the settings that are now in the right sidebar could be moved into the preview.

- **More extensive onboarding**
  The onboarding could be expanded upon, as it currently only includes how to drag and drop.

Onboarding



While discussing the feedback we had gotten from one of the user tests, somebody made the comment, "*what about users who are continuing building on what is already there?*" Meaning users who are new to the designer and that will be working on what somebody else made, they won't see the text from the blank preview.

To combat this, an onboarding popup was designed to show and explain this. Right now, it is only an explanation on how to drag in components. This could be improved upon, especially when expanding the current prototype.

A live preview of the design can be found on https://xd.adobe.com/view/028ee027-cfaf-477d-bb3f-fc62c257f159-57dd/screen/ab0ec975-b248-4d9e-b76f-c8857713289c/specs/

Technical Implementation

During the project, we had a lot of features implemented in the Proof of Concept. This also meant that all new iterations caused clutter, overdone code, and bugs. Especially in this project, that is the case, since a lot more was implemented than expected.

Here is a summary of technical details which could be improved:

- **More use of OpenRemote Technologies**
  Currently we're using Angular for building the project.
  OpenRemote does not use Angular, and they want the code to be widely implementable. The code should be less framework-reliant, and should be similar to other OpenRemote applications. (for example, by using Lit)

- **More OpenRemote integration**
  A lot of features in the OpenRemote platform haven't been used in our project yet. There is for example no implementation of the Realms yet.

- **WebSocket Implementation**
  In the current code, all the data gets received manually or on page load. This should be updated through the WebSocket API from OpenRemote.

- **Backend Websocket implementation**
  Since we want to use WebSockets for the OpenRemote connection, we also see a benefit of implementing WebSockets on the backend.

- **Code Cleanup / Improvements**
  There is always a need for code cleanup and improvements.
  Especially since all the iterations caused a lot of clutter.

Our own Ideas

We also want to share a short summary of ideas we came up with ourselves. Many of these suggestions/ideas are for the long-term, but some of them can be implemented directly.

List of our own ideas:

- **Changing colors of the Website**
  We talked with OpenRemote on how users can select colors in their app. They explained that each company can select their own color to use. This should be implemented.

- **Adding measurements to the values**
  Currently all the values are displayed in plain text, without a measurement like “degrees Celsius” or “kilometers”, etc.

- **More widgets / More customization**
  Currently only a label, graph, bar chart, and pie chart are supported. It would be great to see more of those, such as buttons and switches. Besides that, you can only add 1 asset to a value, while it could be interesting to add multiple ones for comparing them.

- **Undoing actions with Control Z**
  We ourselves experienced trouble with undoing actions on the page. It would be great if a history gets saved of our changes, which we can revert using the Control Z shortcut. This is a feature which is available in many related applications.

- **Add multiple pages support**
  You currently are locked with only 1 page, whilst having multiple pages could give the user more control with their app.

- **Adding example values on the attribute picker**
  It sometimes can be confusing what “wind speeds” and “max power” means. We suggest to add a example measurement or real time data to show what the attribute actually visualizes.

- **Better support for bigger screen sizes (regarding columns)**
  Currently we only support 2 columns, but with larger screens such as desktops and TV’s it's more effective to have more of them. We suggest looking into a mechanism which structures the amount of columns based on the screen size, whilst also taking the users’ preferences into account.

- **End User preferences**
  Currently the OpenRemote users are able to customize the app in whatever way they want. However, if the actual end user (such as an apartment owner) wants to personalize his/her app experience.
  We really suggest to look into the possibilities when applying their personal preference as well.

- **More live widgets such as Webcams**
  It could be interesting to add widgets as video feed to visualize what is going on at a sensor or its room.