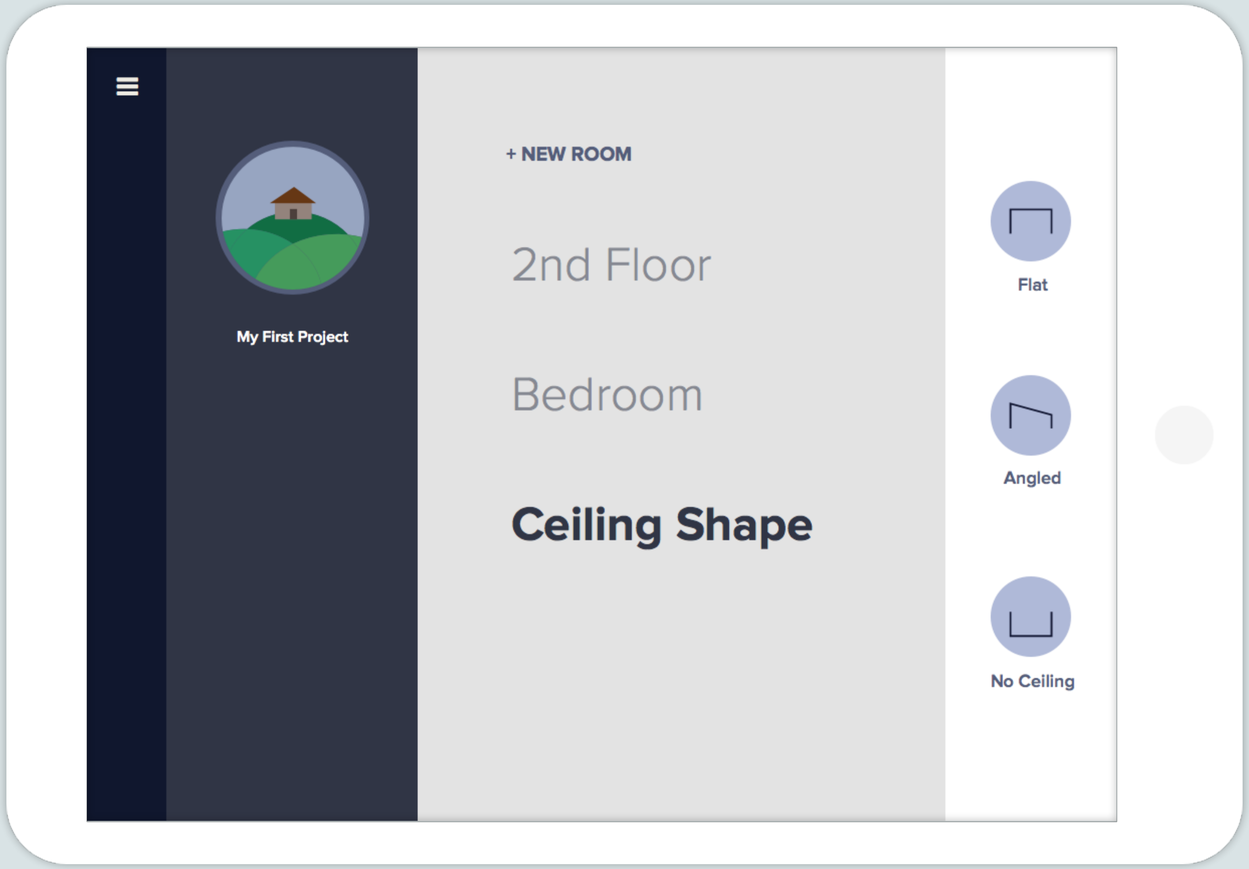
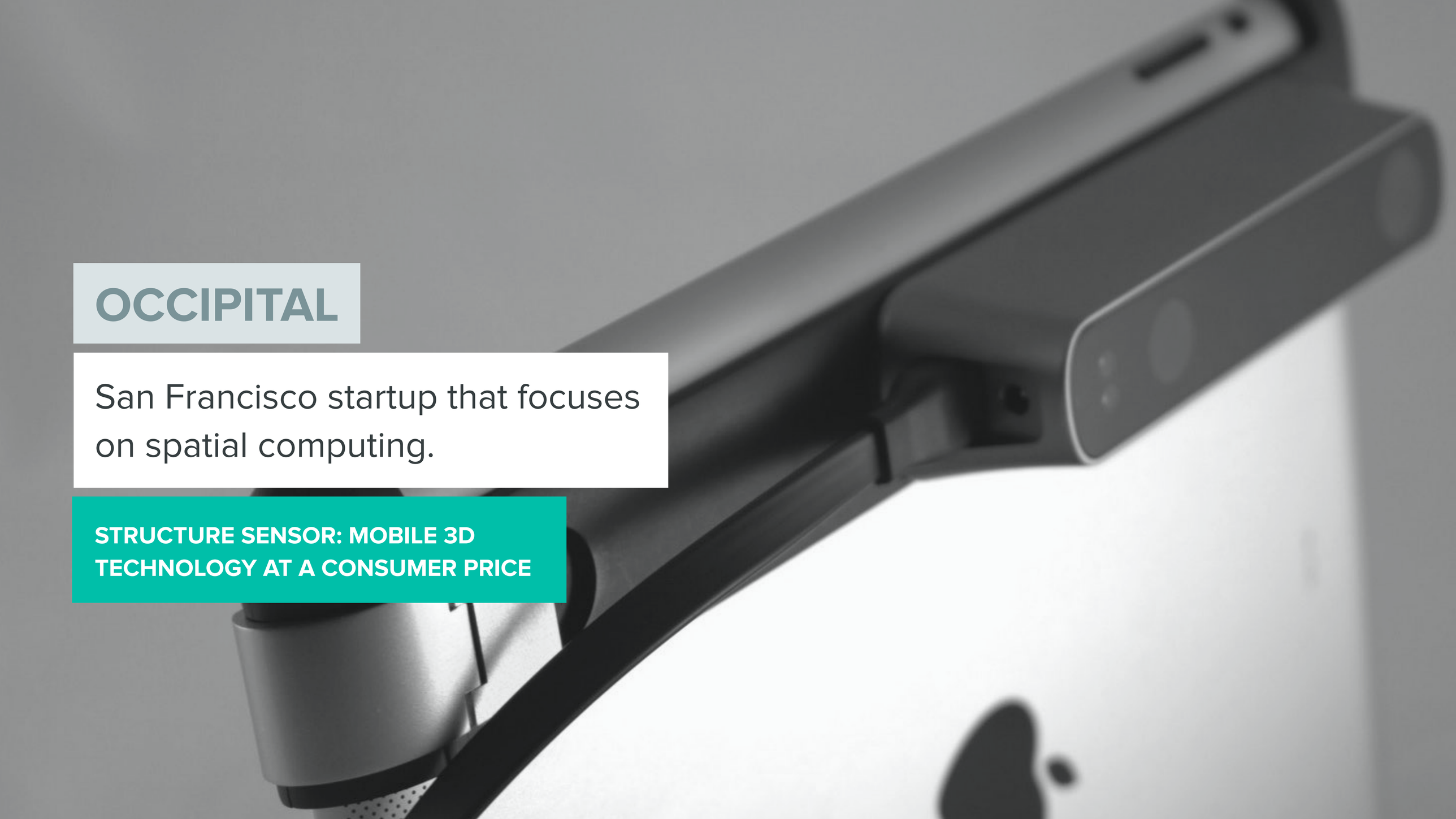


PROTOTYPE

App that allows people to create floor plans quickly with a 3D sensor and their tablet



OCCIPITAL

San Francisco startup that focuses on spatial computing.

STRUCTURE SENSOR: MOBILE 3D TECHNOLOGY AT A CONSUMER PRICE

SCANNER:
SCAN AN OBJECT

ROOM CAPTURE:
SCAN A SPACE

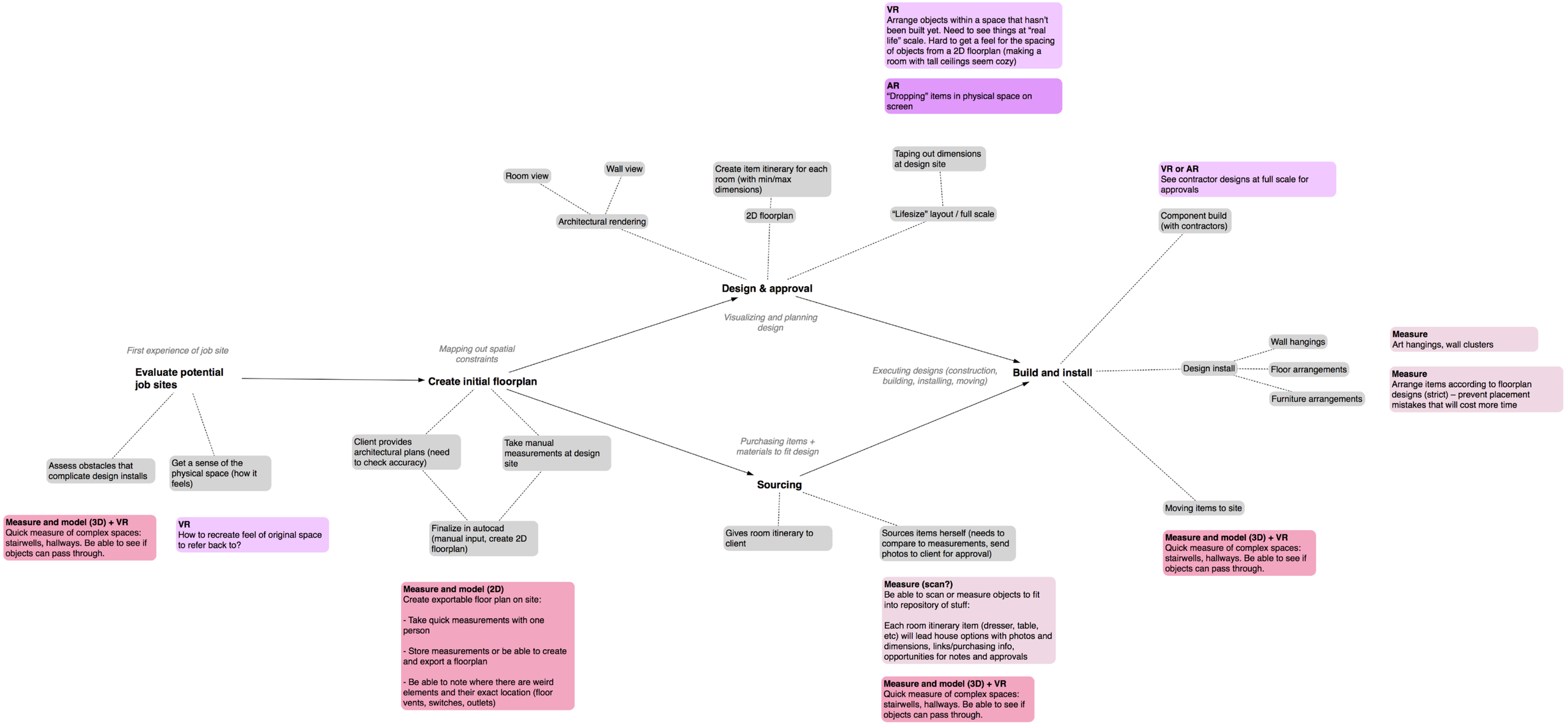
FETCH: AUGMENTED REALITY GAME

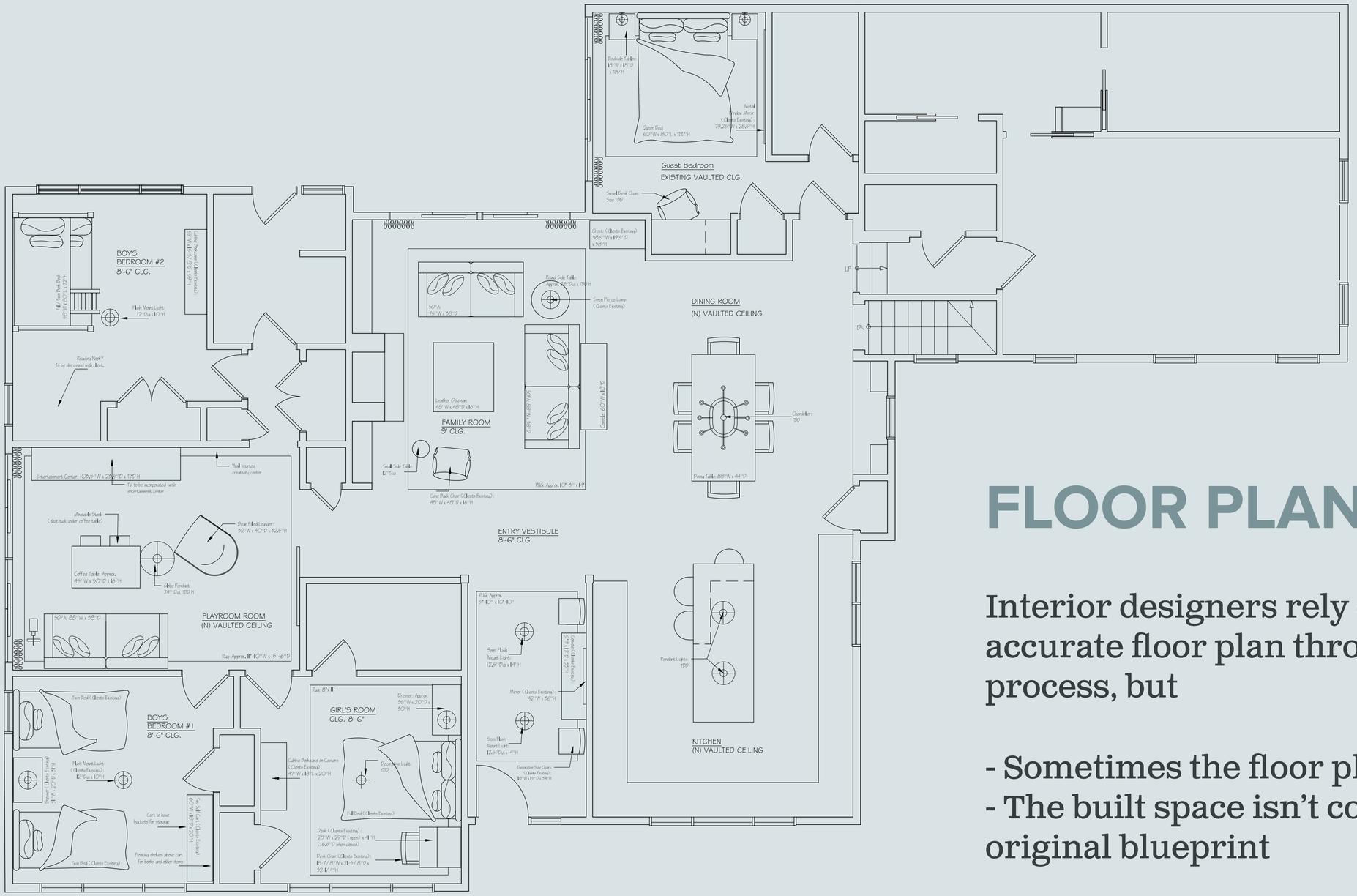
3 DEMO APPS

Single purpose applications for developers to see simple examples of working code for each feature.

EKARE APP

ALLOW MEDICAL PROFESSIONALS TO ASSESS WOUNDS INSTANTLY & WITHOUT CONTACT


VR
Arrange objects within a space that hasn't been built yet. Need to see things at "real life" scale. Hard to get a feel for the spacing of objects from a 2D floorplan (making a room with tall ceilings seem cozy)
AR
"Dropping" items in physical space on screen
Taping out dimensions at design site
Create item itinerary for each room (with min/max dimensions)
Room view
Wall view
Architectural rendering
2D floorplan
"Lifesize" layout / full scale
Design & approval
Visualizing and planning design
VR or AR
See contractor designs at full scale for approvals
Component build (with contractors)
First experience of job site
Evaluate potential job sites
Mapping out spatial constraints
Create initial floorplan
Executing designs (construction, building, installing, moving)
Build and install
Design install
Wall hangings
Floor arrangements
Furniture arrangements
Measure
Art hangings, wall clusters
Measure
Arrange items according to floorplan designs (strict) – prevent placement mistakes that will cost more time
Assess obstacles that complicate design installs
Get a sense of the physical space (how it feels)
Client provides architectural plans (need to check accuracy)
Take manual measurements at design site
Purchasing items + materials to fit design
Sourcing
Moving items to site
Measure and model (3D) + VR
Quick measure of complex spaces: stairwells, hallways. Be able to see if objects can pass through.
VR
How to recreate feel of original space to refer back to?
Finalize in autocad (manual input, create 2D floorplan)
Gives room itinerary to client
Sources items herself (needs to compare to measurements, send photos to client for approval)
Measure and model (3D) + VR
Quick measure of complex spaces: stairwells, hallways. Be able to see if objects can pass through.
Measure and model (2D)
Create exportable floor plan on site:
- Take quick measurements with one person
- Store measurements or be able to create and export a floorplan
- Be able to note where there are weird elements and their exact location (floor vents, switches, outlets)
Measure (scan?)
Be able to scan or measure objects to fit into repository of stuff:
Each room itinerary item (dresser, table, etc) will lead house options with photos and dimensions, links/purchasing info, opportunities for notes and approvals
Measure and model (3D) + VR
Quick measure of complex spaces: stairwells, hallways. Be able to see if objects can pass through.



FLOOR PLANS

Interior designers rely on having an accurate floor plan throughout their entire process, but

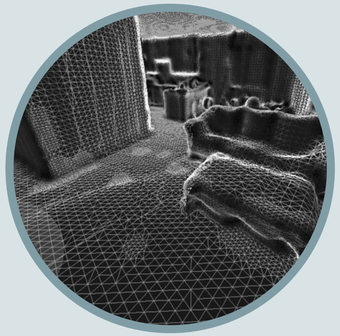
- Sometimes the floor plan not provided
- The built space isn't consistent with the original blueprint

It takes half a day for two designers to manually record measurements

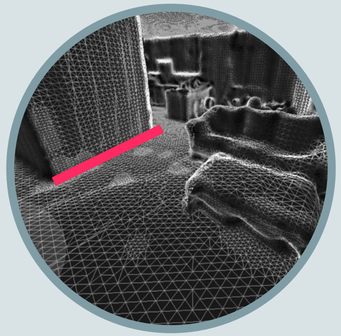
USER GOALS

As a busy interior designer, I want to create floor plans quickly so that I can save time and money.

APPLICATION PHASES

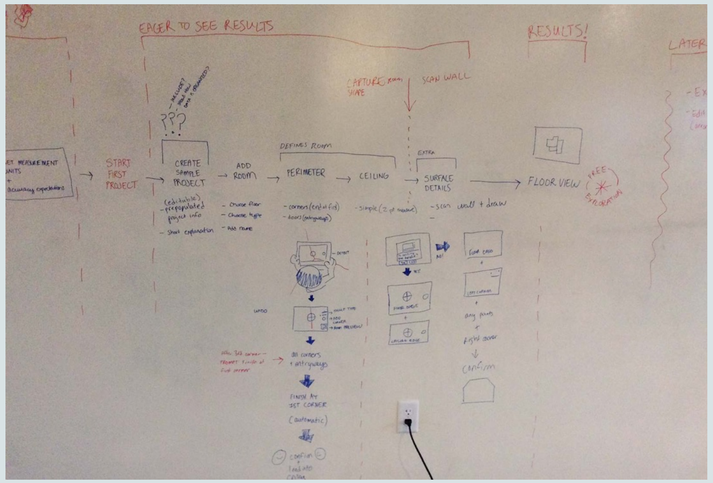


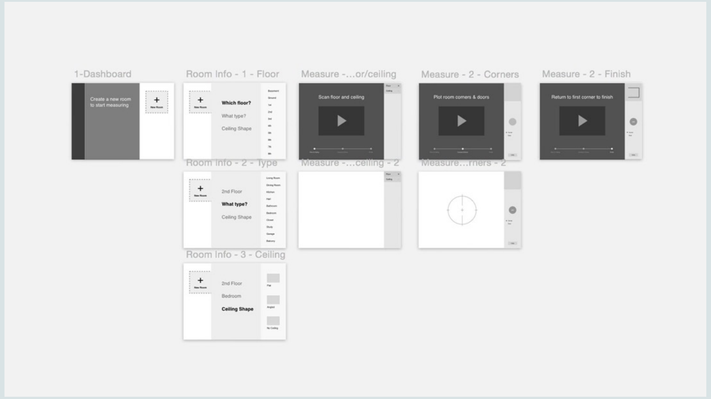
CAPTURE
SPACE

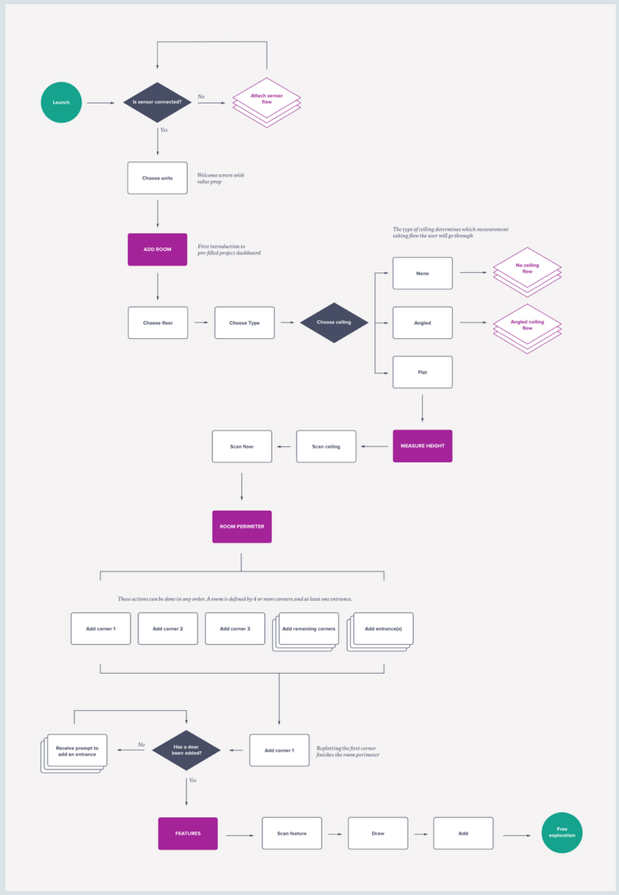


IDENTIFY
ELEMENTS

ORGANIZE
ELEMENTS

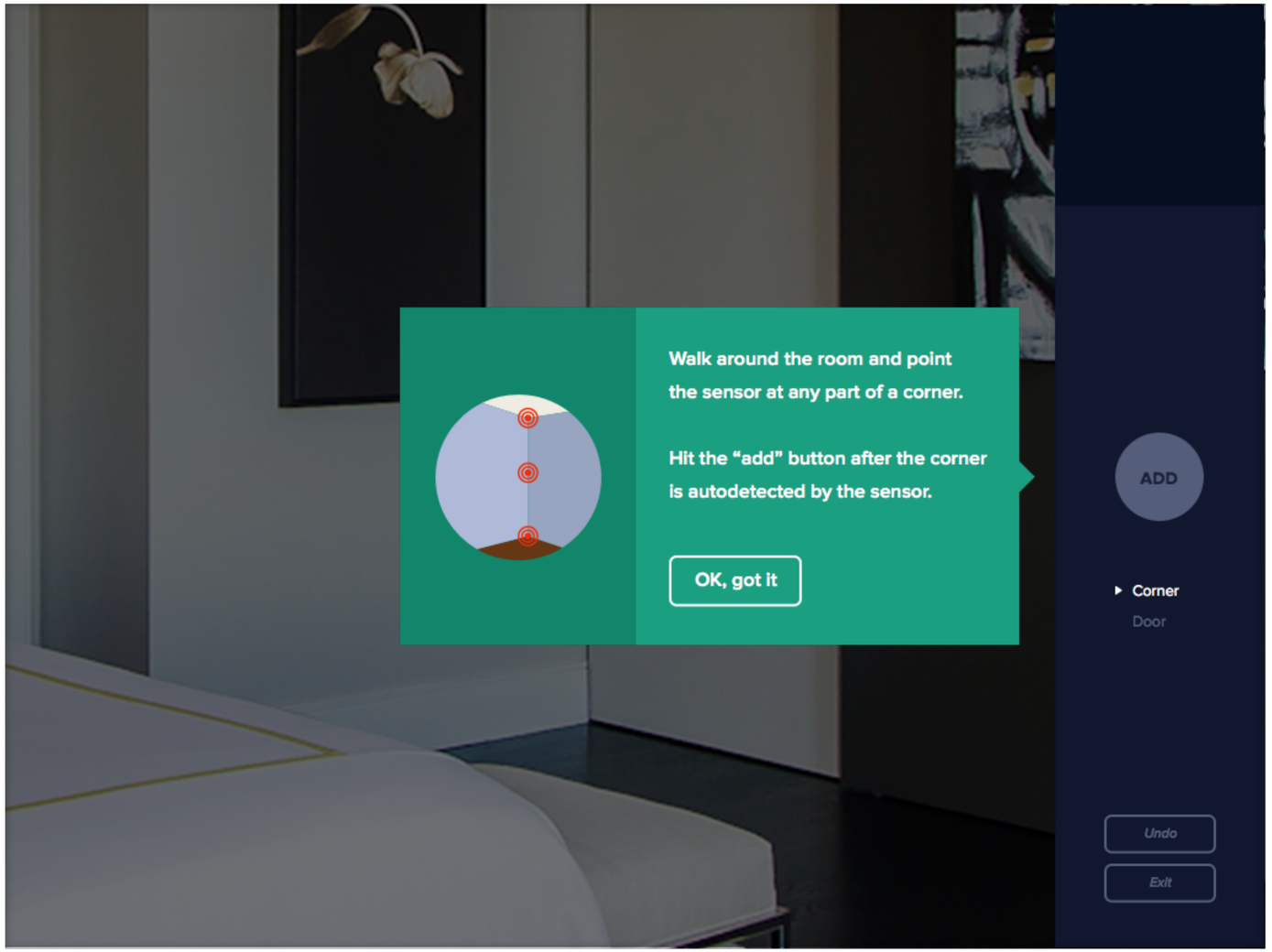






DESIGNING THE ONBOARDING

User journeys, user flows, wireframes, prototypes, usability testing


Walk around the room and point the sensor at any part of a corner.
Hit the “add” button after the corner is autodetected by the sensor.
OK, got it
ADD
Corner
Door
Undo
Exit

NEXT STEPS

Validate approach with users and engineers

Major assumptions:

It’s better for users to manually define the architectural elements (corners, doors, height) instead of building that ability into the software.

Users should define these elements during the room scan instead of after—using the mesh that the scan generates.

DEMONSTRATE IMPACT

Like the medical science application, this provides a more rich and realistic context to demonstrate the sensor’s capabilities.

This gives potential developers a better sense of the impact that this sensor can make.