

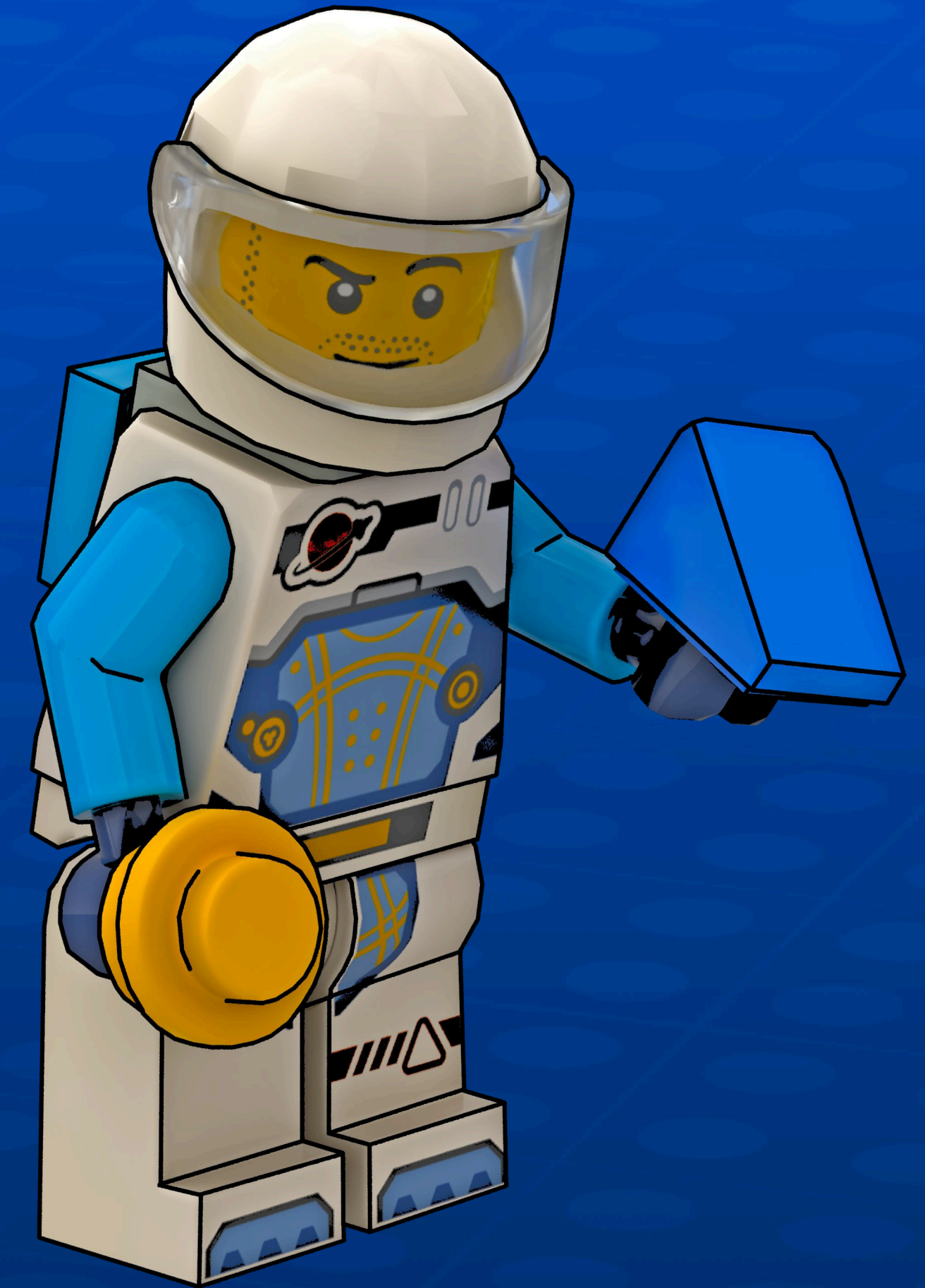
Creative Building Kit

SPACE EXPLORATION

Name	Tyler Tran
Industry	Toys & Games
Role & Team	Designer, Solo
Timeline	12 Weeks

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Background

Problem Space

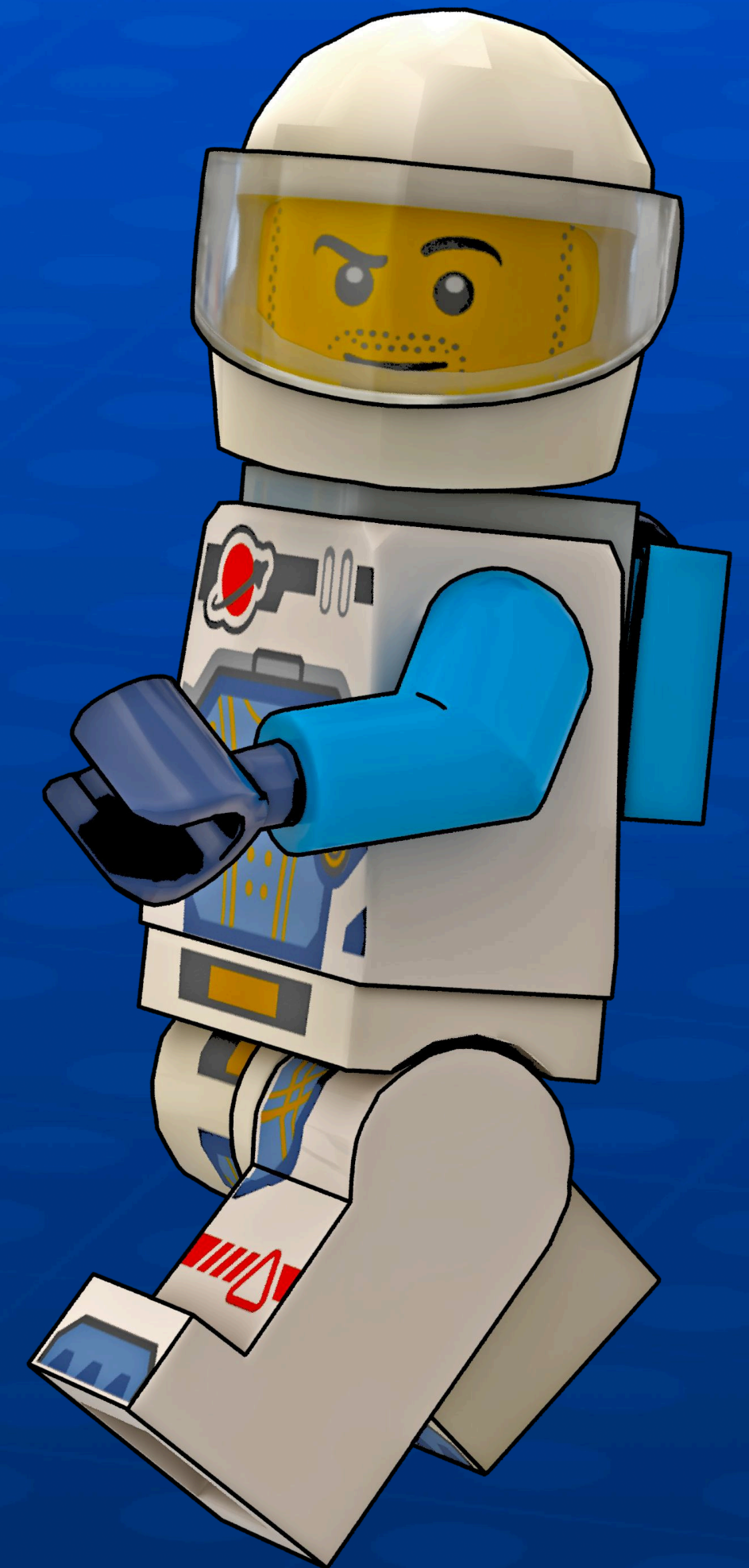
Problem

Creativity is core to the LEGO Group as evidenced in their Brand Values and Brand Framework.

Most themes in the LEGO catalogue encourage linear, instruction based building, even in creative driven ones such as Creator 3 in 1 and Classic. This forces builders down a set path.

Goal

The Creative Building Kit strives to open up the building experience altogether provide a self driven building experience, where user imagination comes first.



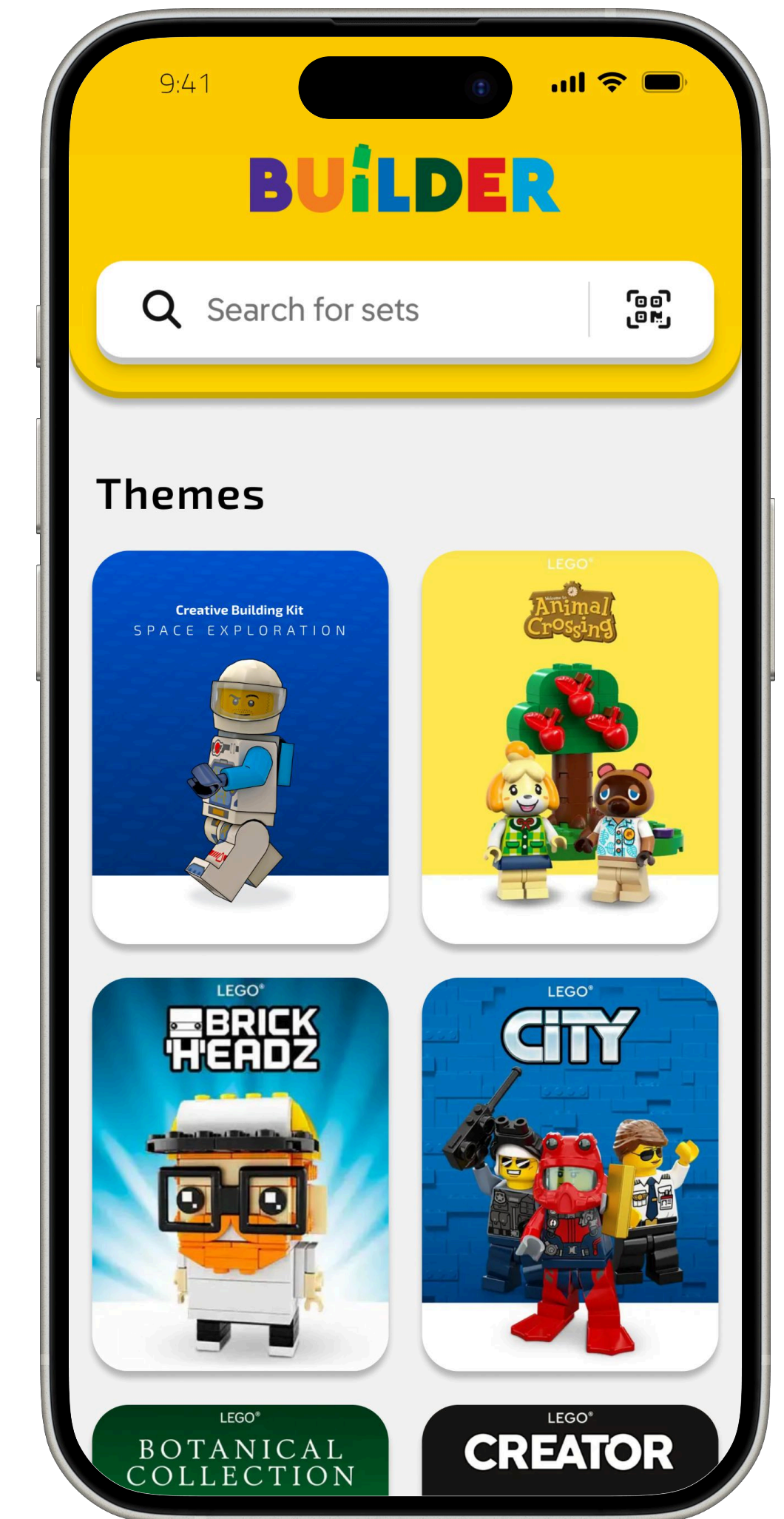
Final Product

Creative Building Kit: Space Exploration

Ultimately, the final product after 12 weeks of work culminated in a themed building kit for creativity:

Includes:

- 2 Decks of Cards
- Building Bricks
- Manual
- Accompanying mobile app experience (building on the BUILDER App)



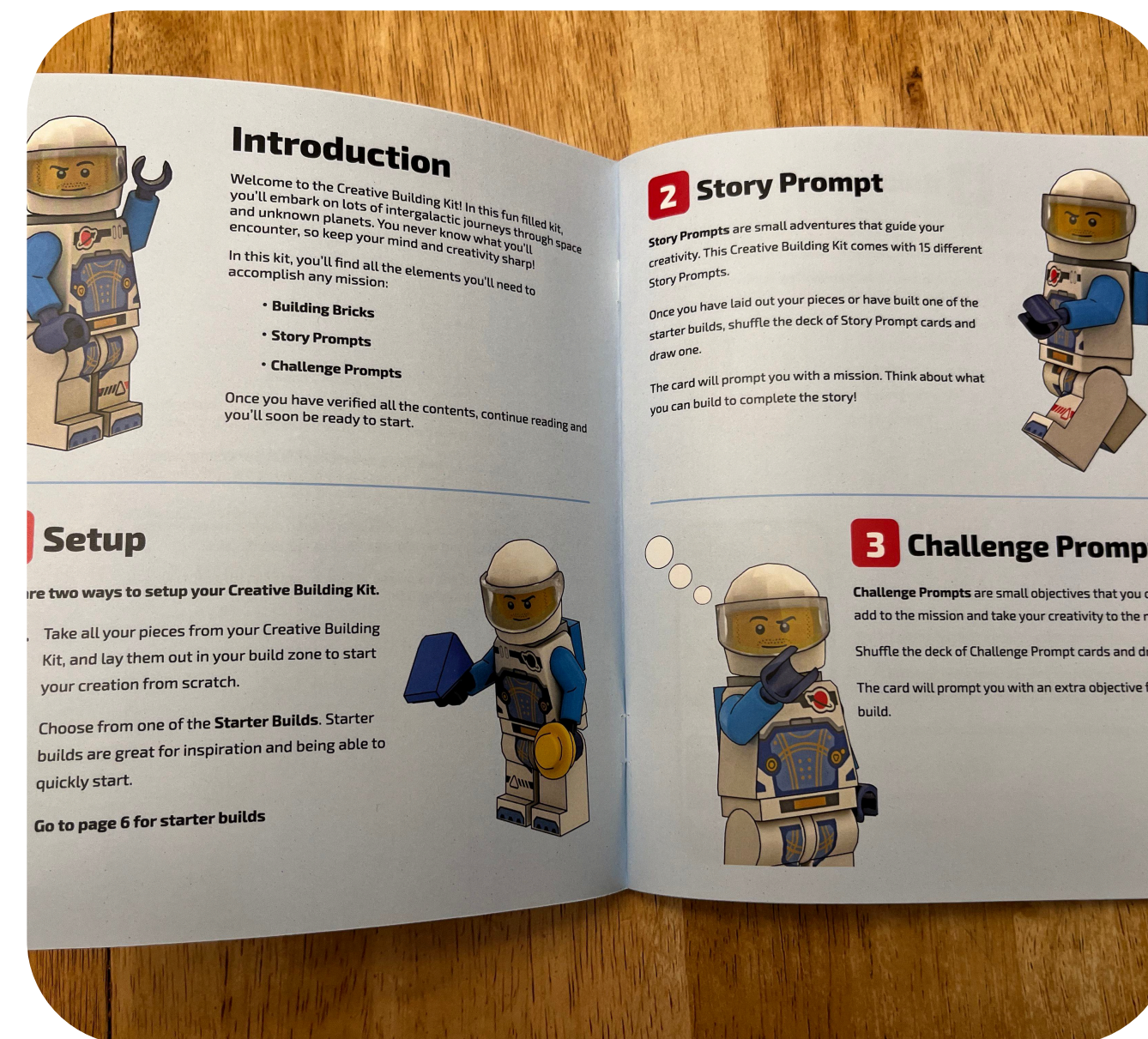
Creative Building Kit: Space Exploration

Physical Components



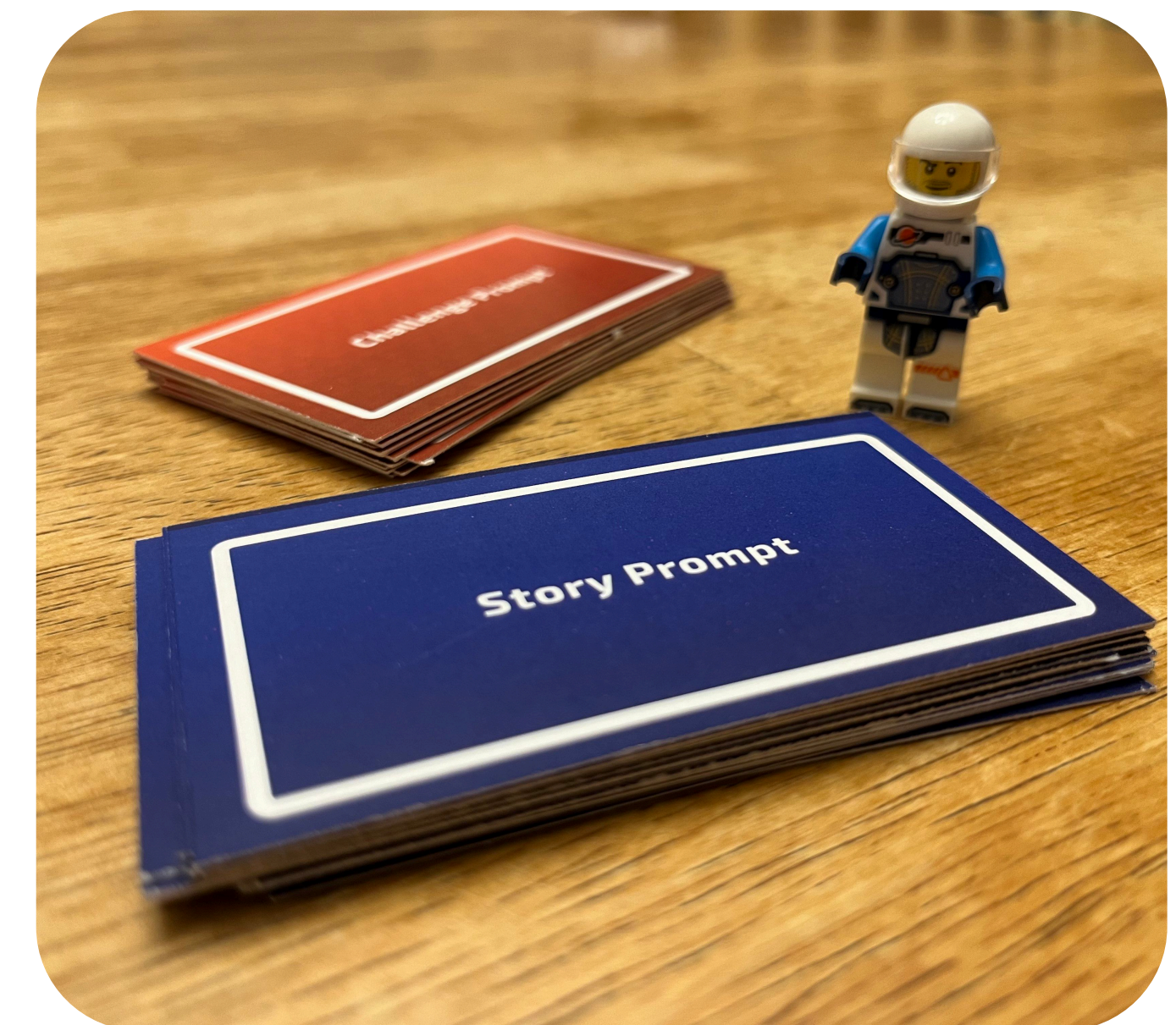
Building Elements.

A wide variety of building elements to create anything from cars to creatures and more.



Instructions

Teach players how to participate. Includes “Starter Builds” for newer builders.



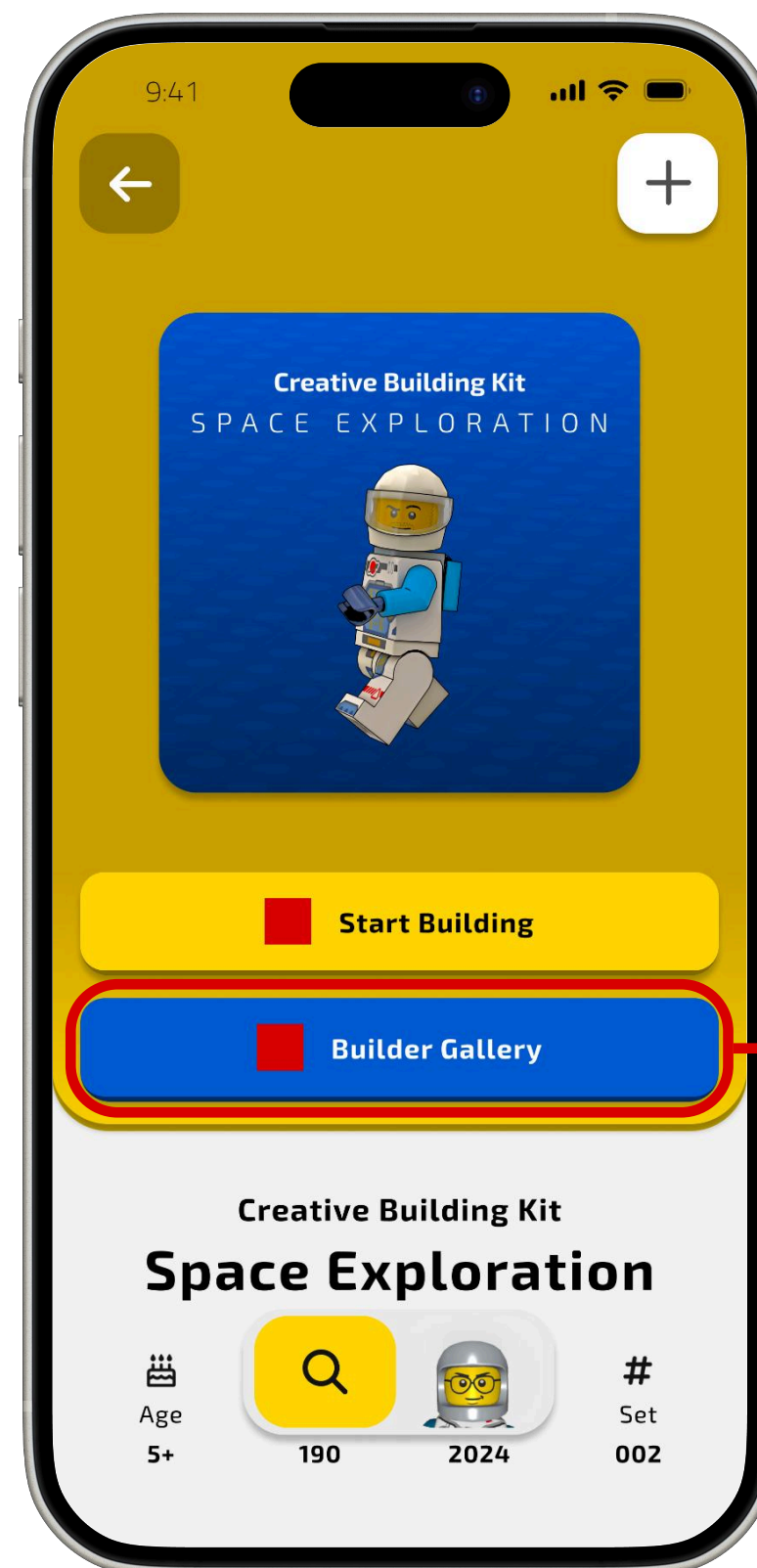
Prompts

Story and Challenge Prompts combine to give players “missions” to complete (build).

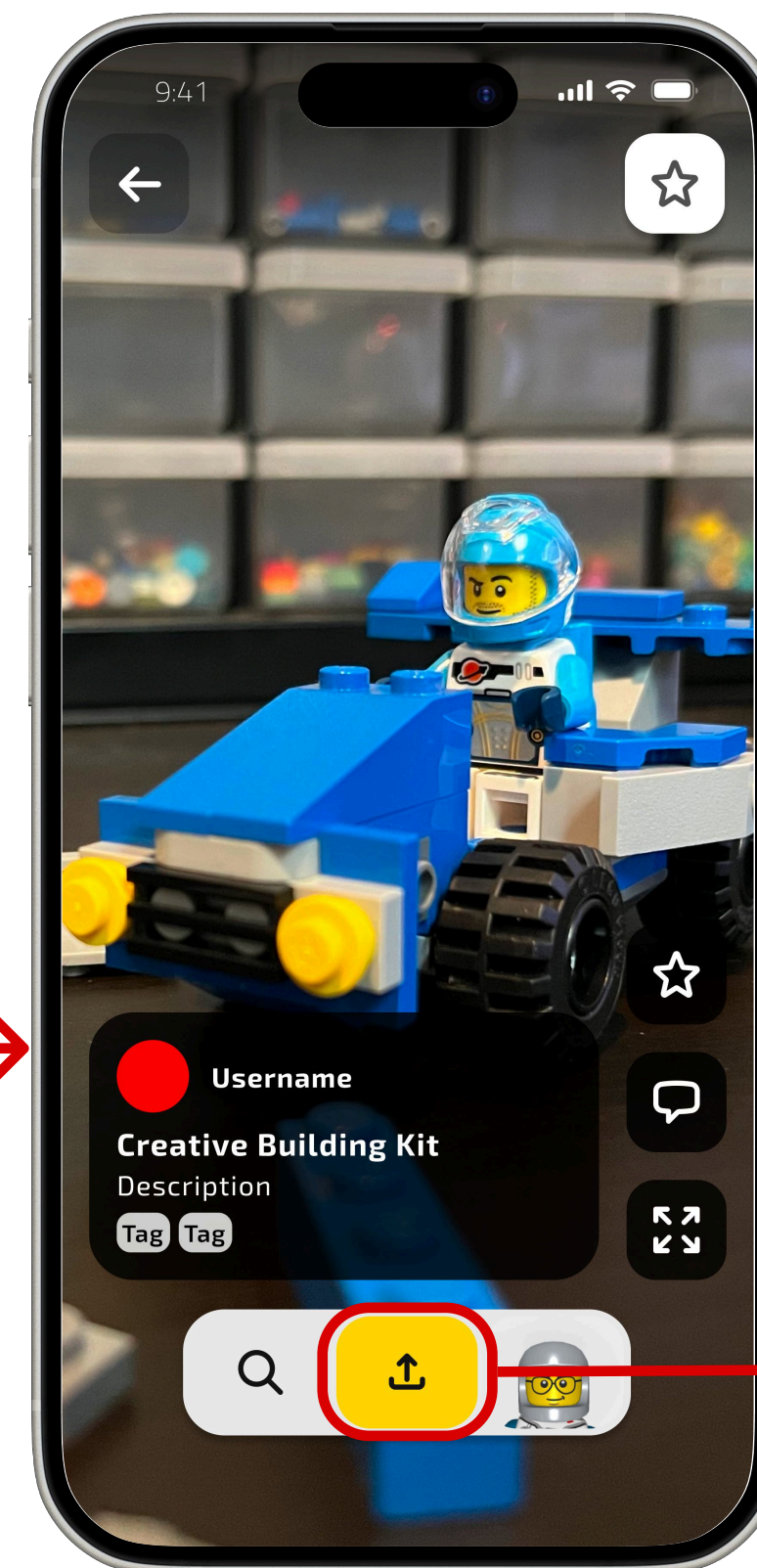
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Digital Component

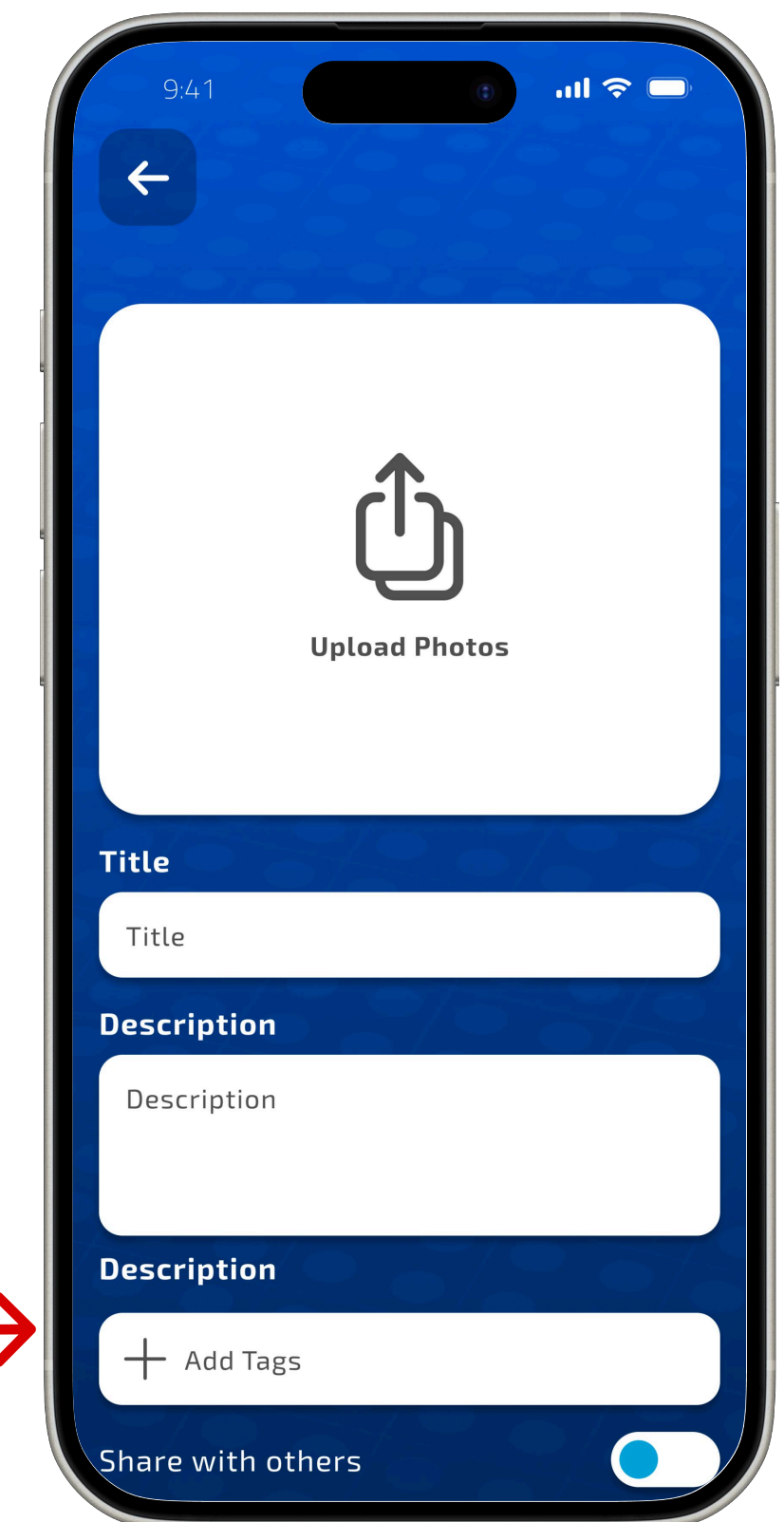
After building, players are encouraged to use the existing BUILDER app and view other peoples' creations and upload their own within the Creative Building Kit's Builder Gallery.



“Builder Gallery”



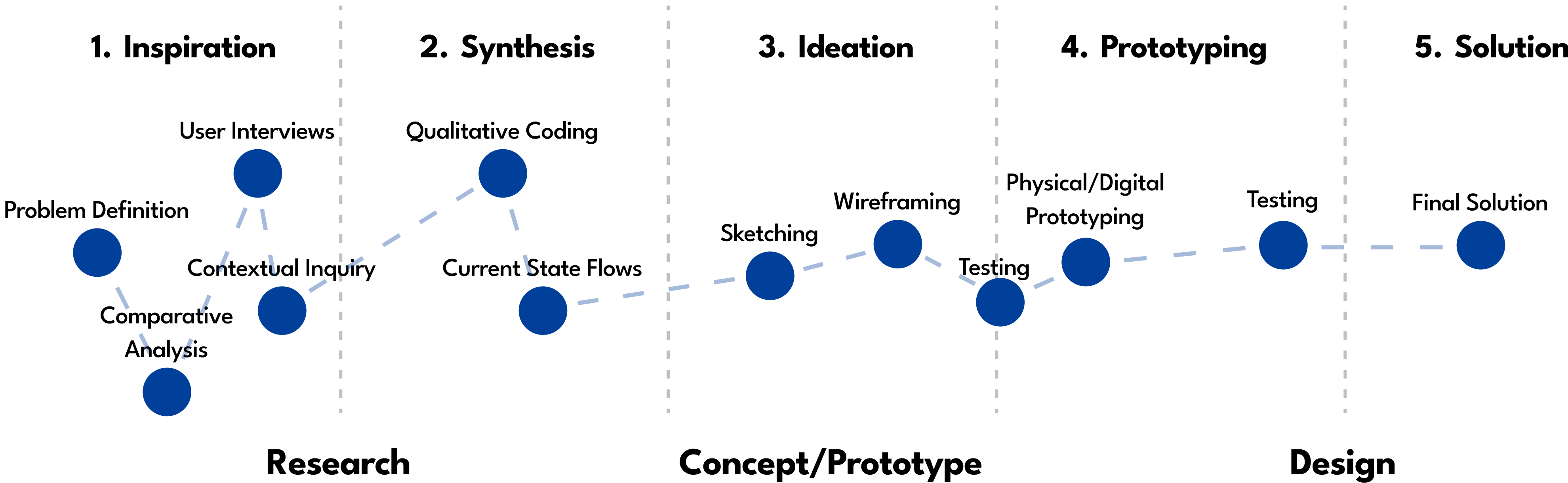
View builders' creations.



Upload your own creation.

Human Centered Design Process

The Creative Building Kit started with initial inspiration and subsequent research that followed through to prototyping and designing a final product.



Research Objectives

There were 3 main objectives that drove my chosen research methods.



Uncover the reasons why people build their own custom models

Where does the inspiration to build come from and why?



Understand the end to end journey of how participants build creatively.

What goals or challenges do people encounter when building? How do they start and end building?



Discover Tools that people use to build creatively.

What tools or platforms do people use when gaining inspiration or building?

Research Methods



Competitive Analysis

I analyzed LEGO's 11017 Creative Monsters, and 31145 Red Dragon sets to determine how they utilize building instructions, encourage creative building, and understand part usage and implementation between the two.



Interviews

One on one interviews were conducted to understand participants likes, dislikes, and behaviours as it pertains their interactions with LEGO products. Topics covered both why and how they build creatively and linearly through purchased models.



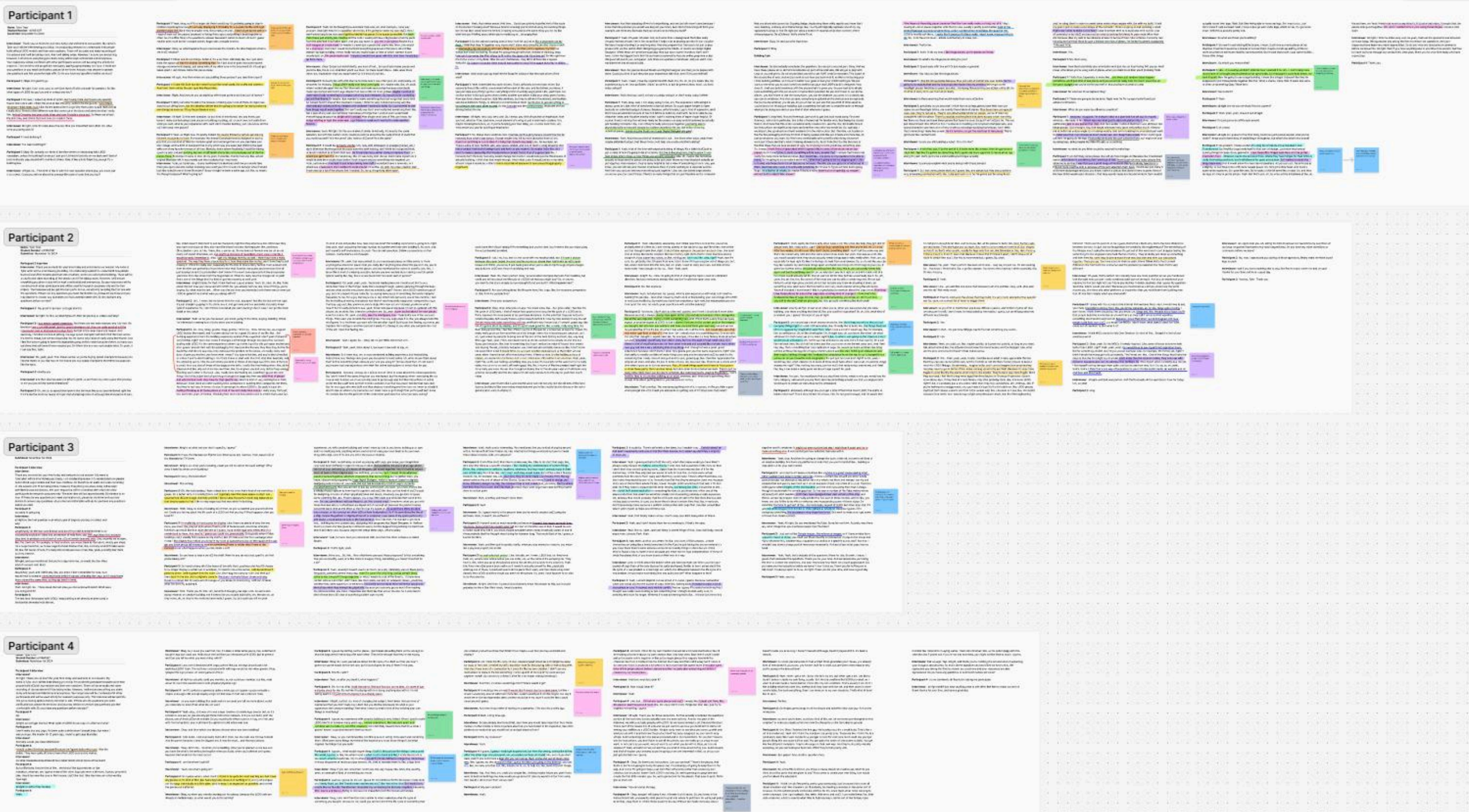
Contextual Inquiry

Using 11017 Creative Monsters, I asked participants to build using the pieces and instructions provided while thinking aloud to understand their behaviour and thought process during building.

Qualitative Coding

I went through and coded the transcribed interviews from my interview and contextual inquiry sessions.

The point was to find themes between participants responses and find insights on those themes.



Research Themes & Insights

Some insights I found when synthesizing the data from my research:

1

Themes and Interests matter

Participants purchase LEGO based on existing interests like IP's (Star Wars, Fortnite, Animal Crossing), and overall themes (Cars, Robots). This also influenced creative building.

2

Parts have influence

Participants care about building elements provided, which influences their building options and serves as a starting point in their creations.

3

Online platforms are key to the modern experience.

Participants stated that online images on Google or social media platforms such as YouTube and Instagram are great ways to gain inspiration.

4

Physical building is better

Participants prefer using physical elements despite digital software affording greater scale.

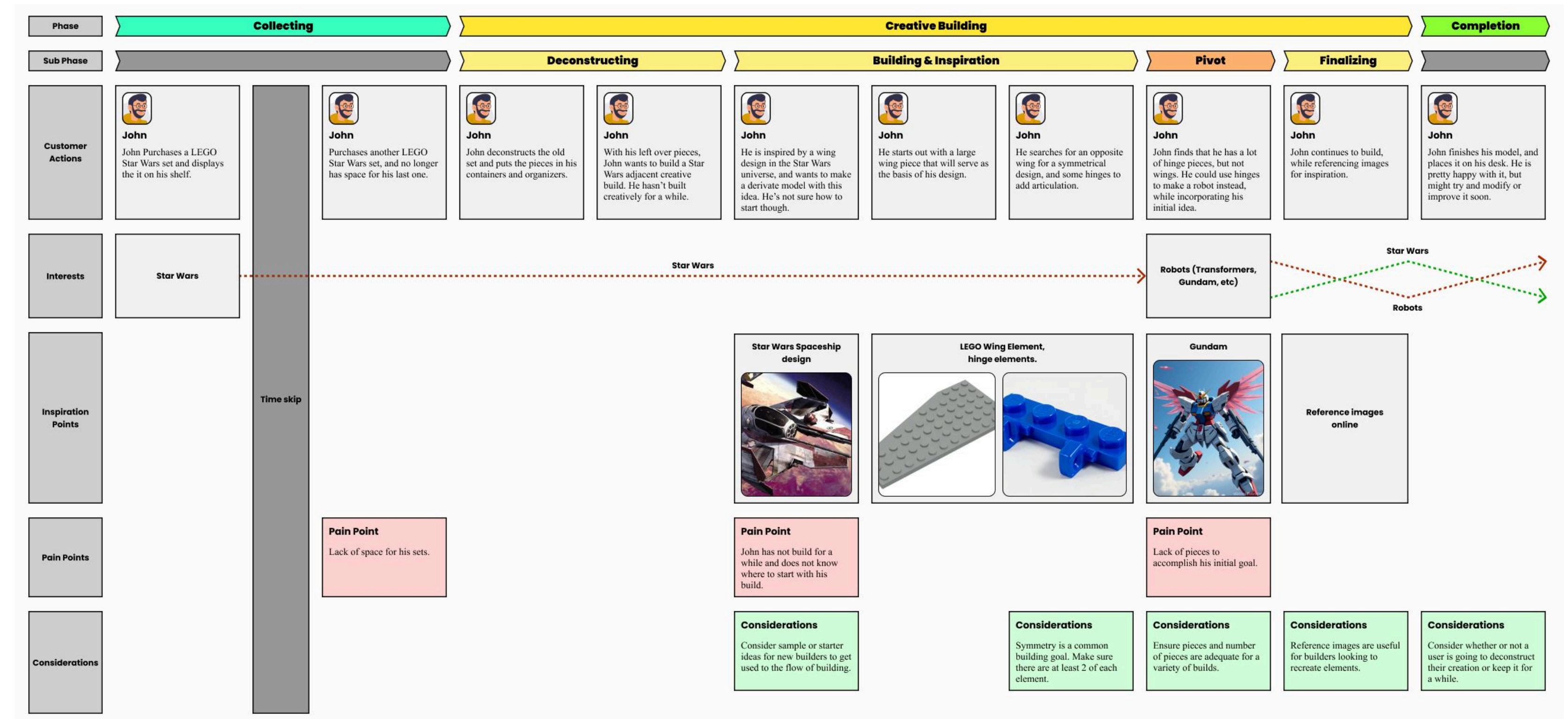
“Just being able to physically build... will always be a better experience for me.”

Journey Mapping

Current State Building

Based off of the findings from my research, I created a current state journey map that illustrates how participants build and what challenges they encounter.

This artifact shows what specific pain points or steps require more consideration for when I started designing.

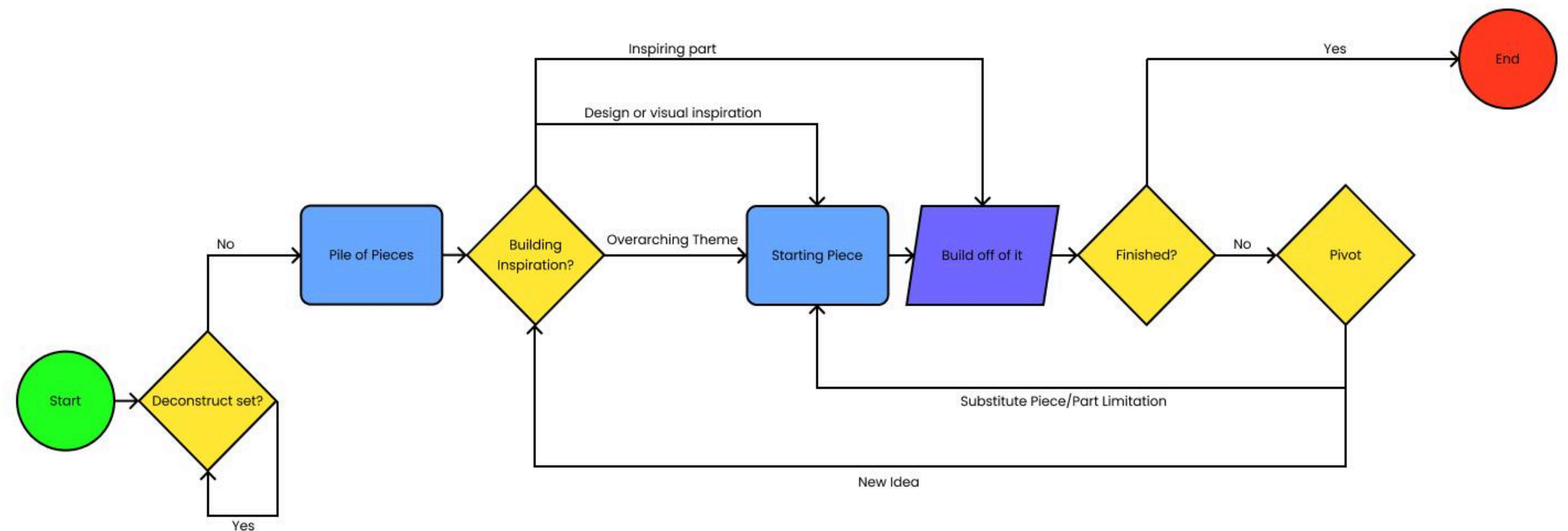


User Flow

Current State Building

Similar to the journey map, the user flow documents the current state of how people build.

The user flow shows the choices that are made during the build process. I found that during the process, there is a lot of looping back and fourth between inspiration and pivoting due to limitations.



Moodboard & Style Guide

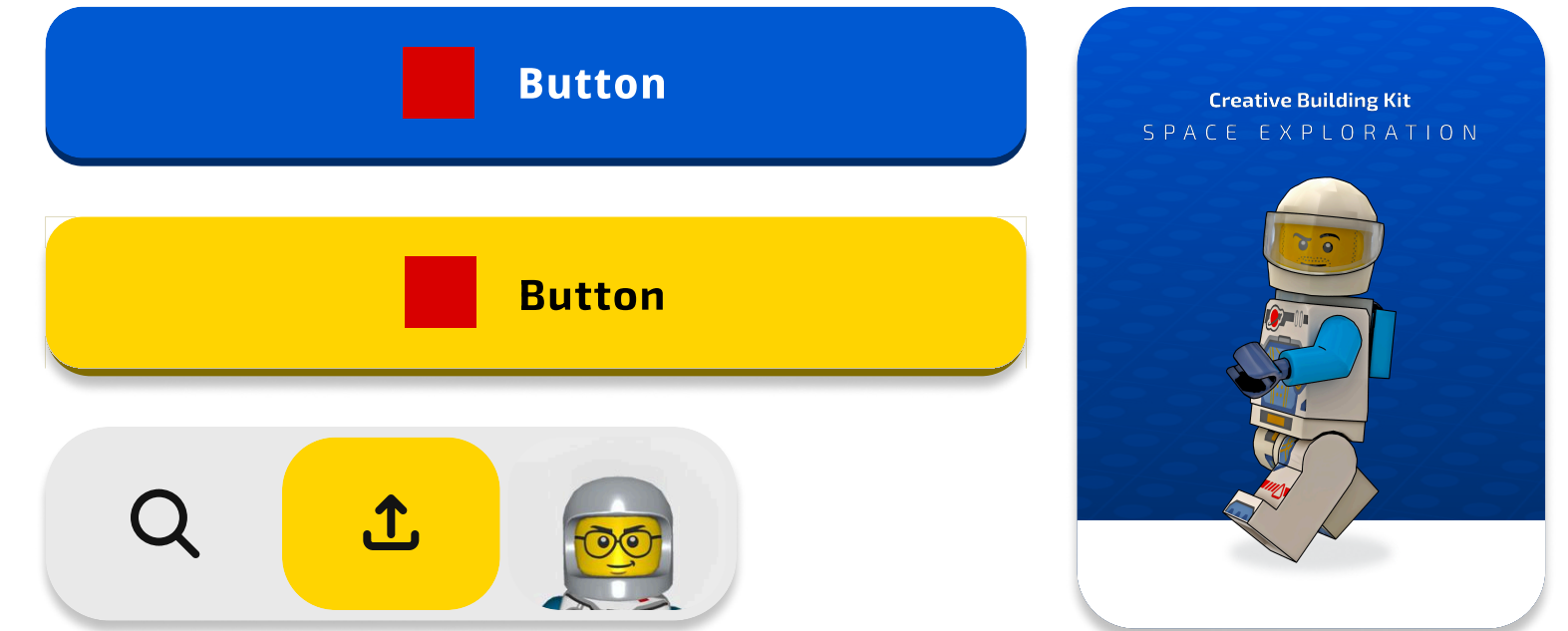
While designing the elements of the Creative Building Kit, I made sure to reference the existing LEGO colours and visual language, including their box art.

My goal was to seamlessly integrate their design language with the hope that the product could be its own theme in the LEGO catalogue.

Colours



UI Elements



Visual References



Concept Development: Parts Kit

Included Building Elements

I started off building the kit of parts physically and seeing what I could build myself using around selected 150-200 pieces.

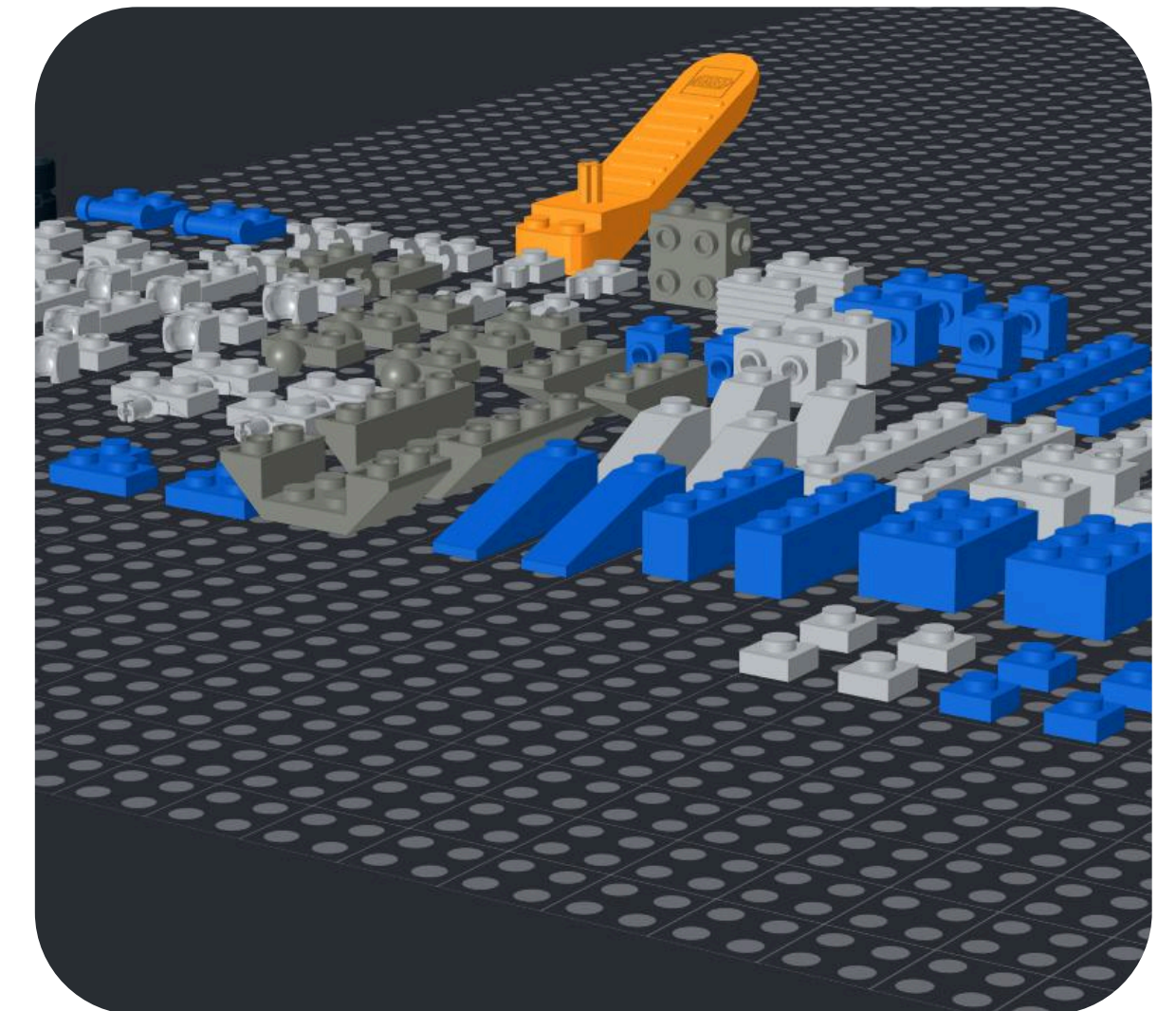
When selecting parts, I made sure to think about my research findings and what people require for building.

Lastly, I saved all the pieces in a LEGO digital design software, Studio [Bricklink] to validate part count.



Themes and Interests matter

Participants are inspired by themes and the world around them. LEGO's classic space theme is one of the most popular, so I went with a classic blue and gray colour scheme to align with Classic Space.



Parts have influence

Participants look for pieces in pairs. Symmetry is important in many builds, so I made sure to include 2-4 of most part types.

Concept Development: Prompts

Story & Challenge Prompts

To remove the need for an instruction manual, while still giving builders adequate direction, I created cards that would prompt the user to build certain scenarios.

Having a deck of cards adds randomness and replayability.

I also explored the idea of dice and timers to add to the kit, however for the sake of simplicity removed the option.



Story Prompts

Story Prompts are the main prompts. They ask the builder to build and solve certain scenarios, like travelling through dense terrain.



Challenge Prompts

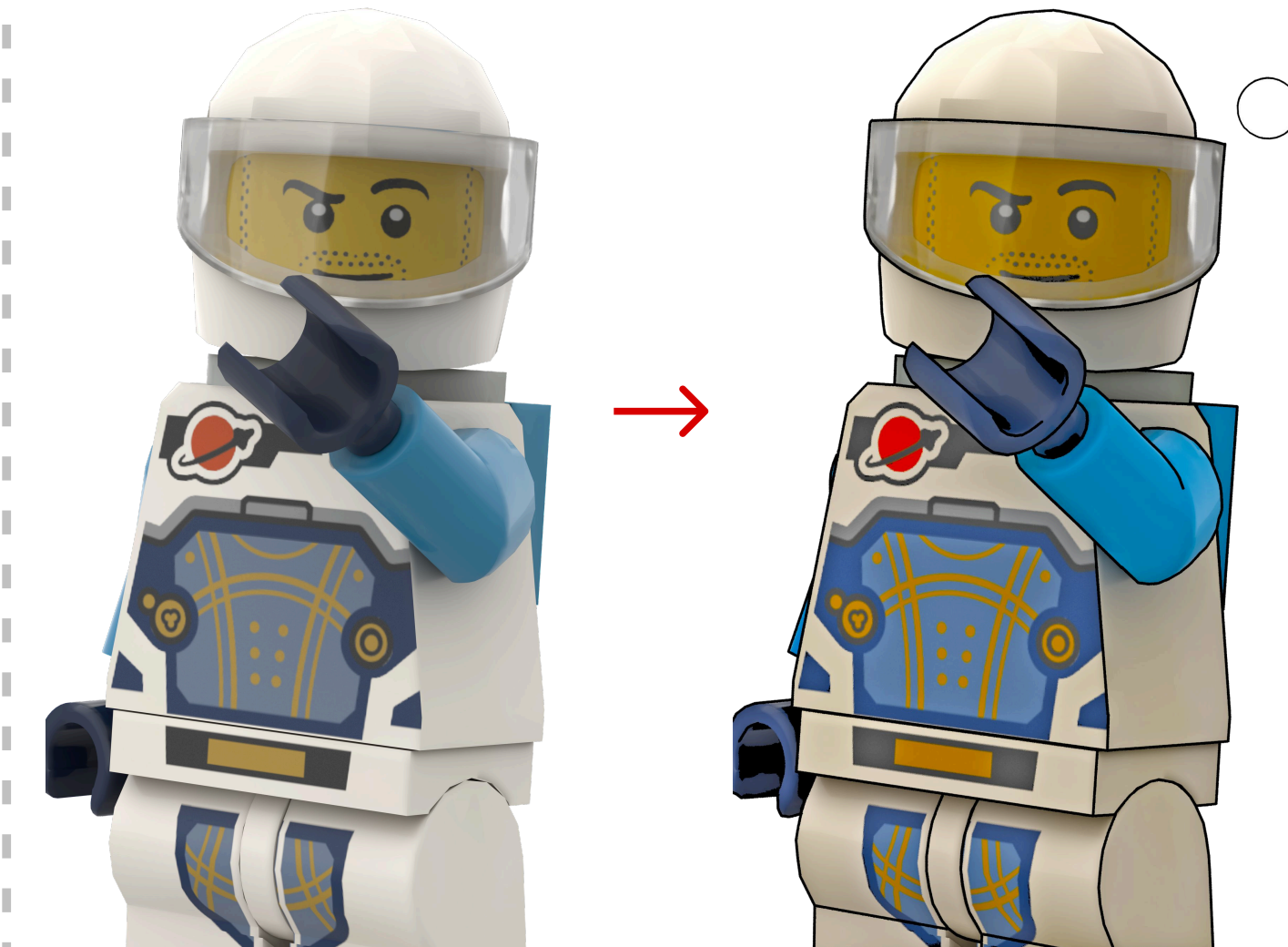
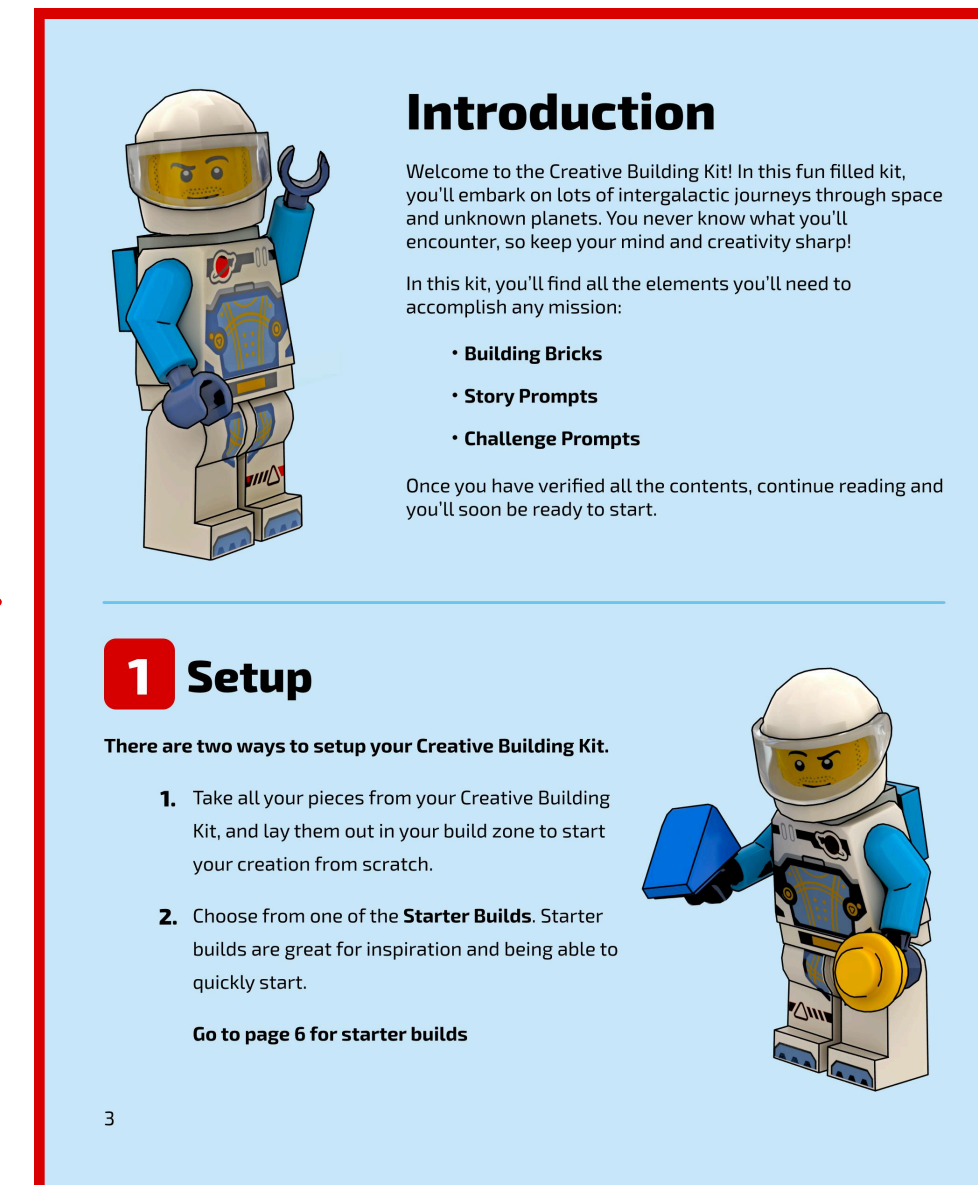
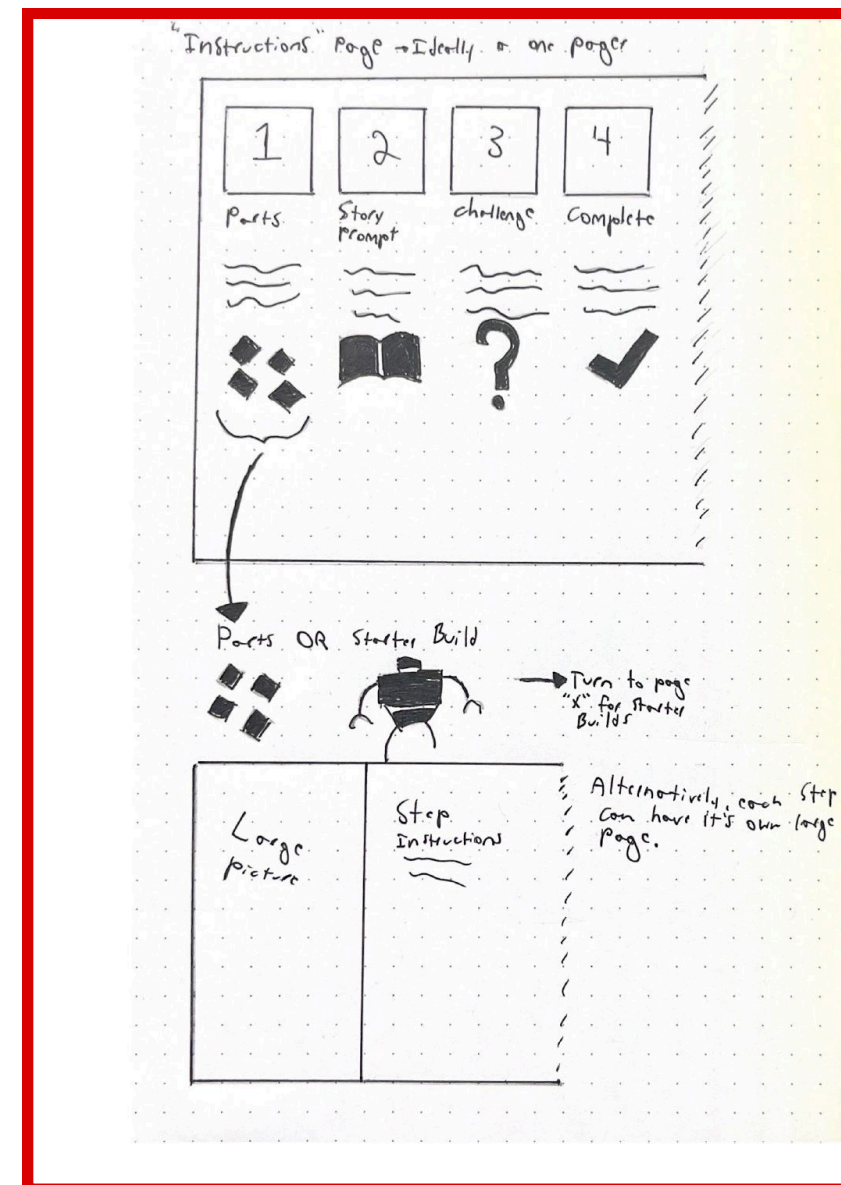
Challenge Prompts are an optional deck of cards that add an extra requirement to the Story Prompt and increase replayability. These could be as simple as building something with wheels.

Concept Development: Manual

Overall Design

Due to the addition of cards, a manual is required to teach builders how to use the Creative Building Kit.

I wanted to go for an illustrated look for the character while keeping in line with LEGO's instruction branding and colours.



Wanted to go for an “illustrated look.” By outlining and adding effects to the character renders, it makes the character’s colours and details pop.

Originally meant to be a one pager. Visually, I felt that 2 steps per page looked better and gave space for some visuals.

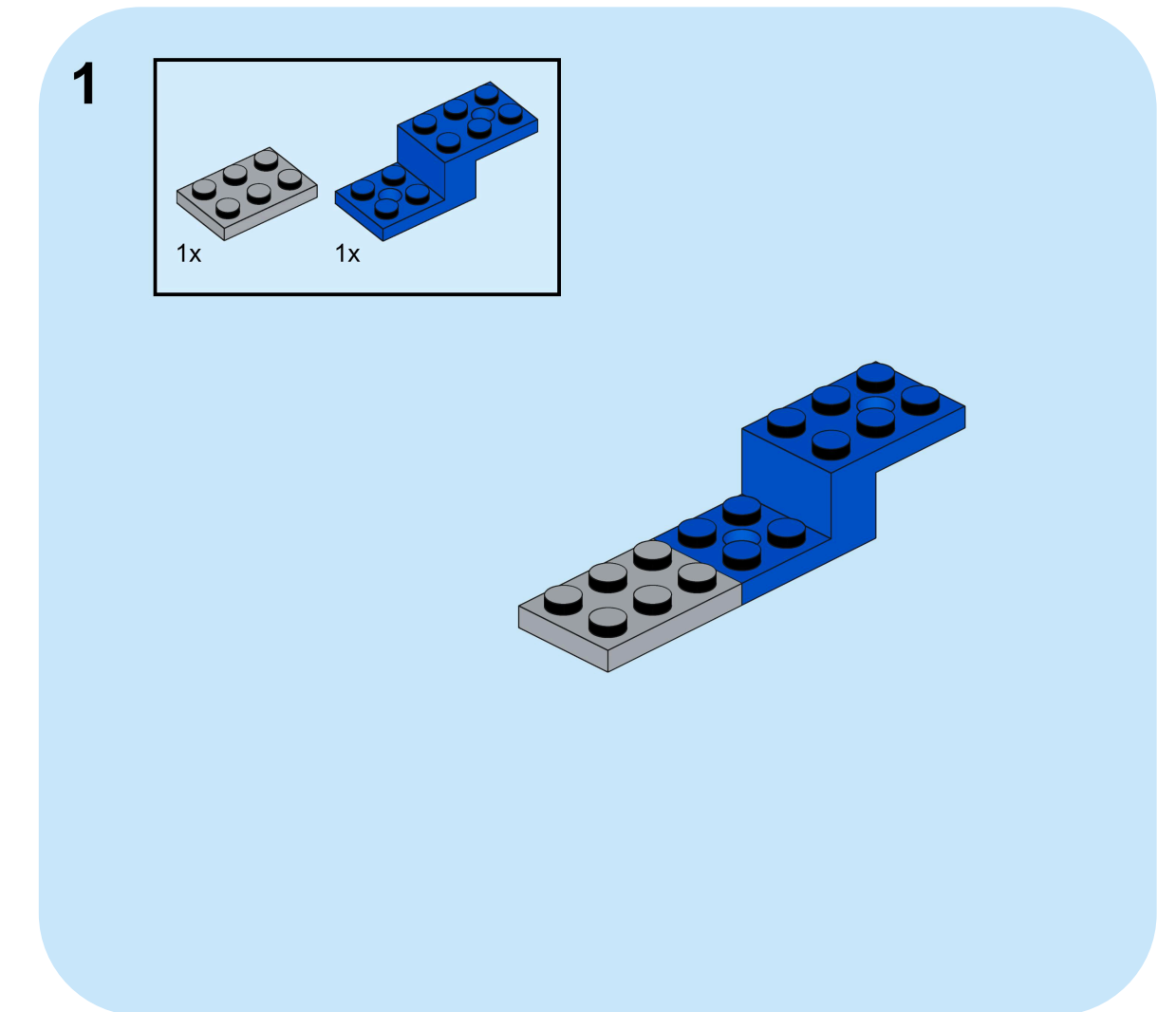
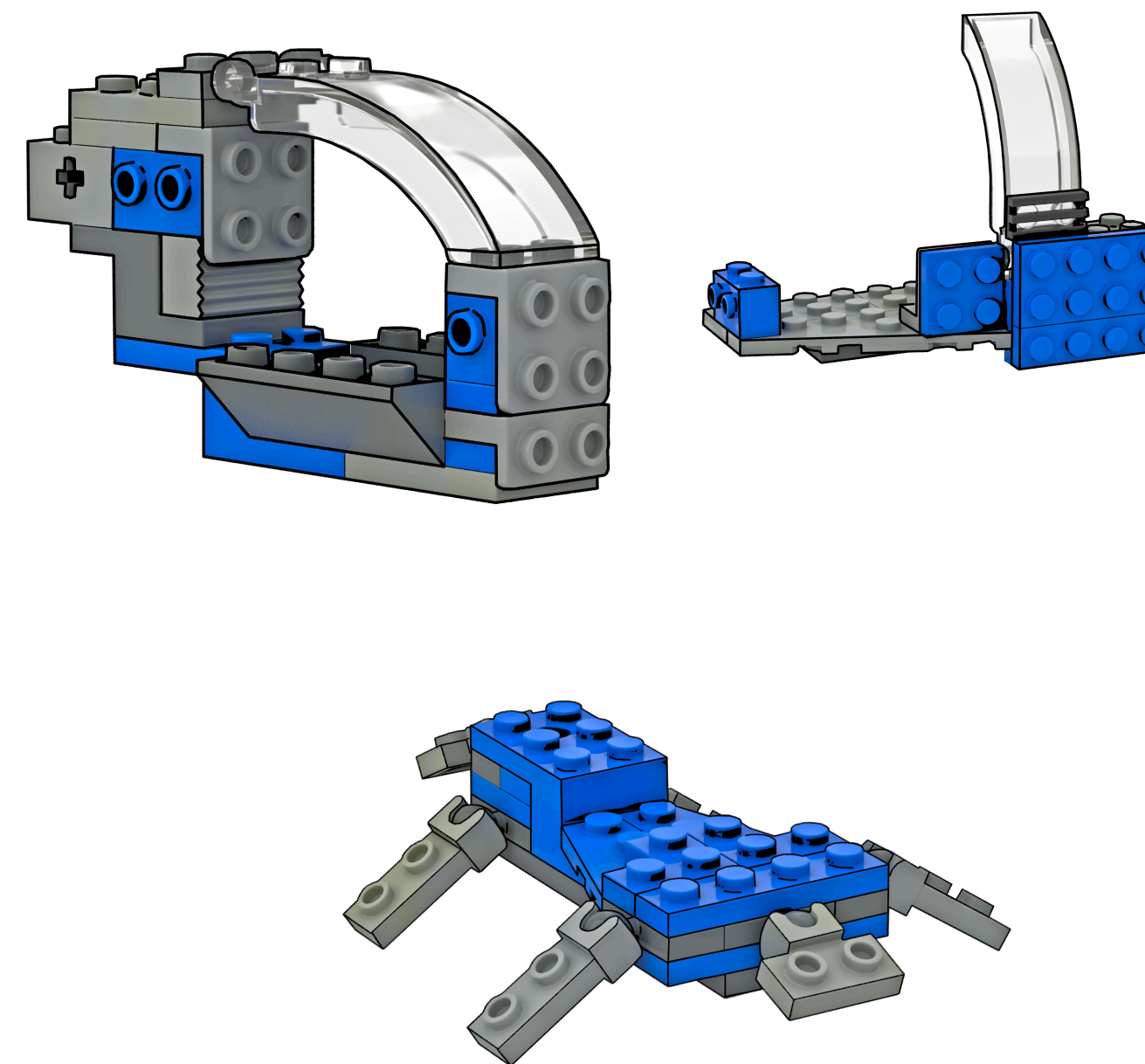
Concept Development: Manual

Starter Builds

While the goal was to be instructionless, they serve to guide newer or less experienced builders.

I created three starter builds that are intended to be jumping off points for building. They give builders ample areas to build off while also being incomplete enough to want to add to.

I designed the builds physically then translated them to Studio [Bricklink] where I could generate instructions and add them to the manual.

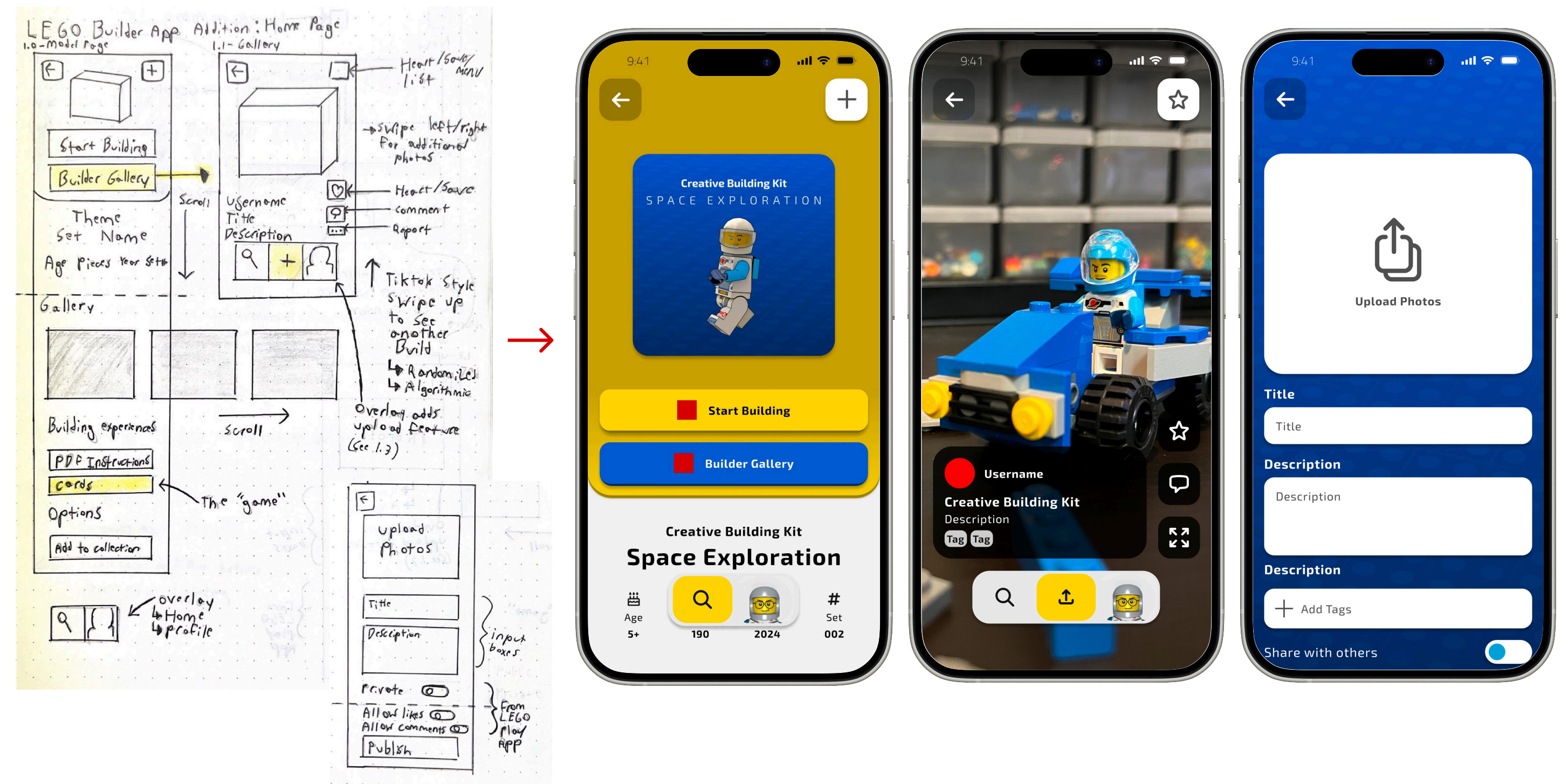


Instructions designed in Studio [Bricklink].

Concept Development: Builder App

Next, I started working on the app component that builders can use to share their builds.

LEGO already has the BUILDER and PLAY app, which have galleries and a user generated content viewer. I used their layout and design to seamlessly integrate my building kit as if it were an official theme.



Sketches were derived from the original designs from LEGO's app. This is why I went from sketch to mid/high fidelity using the existing assets..

Experience Prototyping

Creative Building Kit: Space Exploration

After testing and validating my various concepts from the pieces to cards, I finally printed my story prompts and manual, and designed a box for the kit to finish off the physical prototype and package.



Reflections

Challenges with Gamification

There were challenges in each phase. I learned a lot with each step, however the cards added an extra level of complexity while designing. I had to leverage principles related more to game design and gamification, which is something I wish I had more time to learn about and hone to make my story and challenge prompts more compelling.

As a life long LEGO fan, this was as much a passion project as it was a school project, and I am very happy with how it turned out, especially as a solo project.

Reach out to me at tylertrandesign.com if you want to discuss the project and my design decisions further!

