AR App for Museum

Cognitive Walkthrough

GROUP 12

Anurag Ramteke	150101010
Ayush Jain	150101012
Deshmukh Udayraj	150101021

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Introduction

1.1 Purpose

The purpose of Cognitive Walkthrough is to evaluate design early using low fidelity prototypes.

1.2 Overview of the process

The steps followed for cognitive walkthrough were :

Before the walkthrough:

- Selection of the participants
- Select the tasks to be examined
- Select the interfaces (screens) to be evaluated

During the walkthrough:

- Present the task
- Ask the user to perform task.
- Observations are recorded
- Accept input from all participants without interrupting demo

After the walkthrough:

- Analyze observations
- Make interface changes
- Plan the next evaluation

User Persona

Since cognitive walkthrough can be performed by anyone in the team except the supervisor, the following from the team members were selected :

Team details :

Name : Ayush Jain
Age : 19
Department : CSE
Frequent Museum Visitor : No.
Technical background : Yes.

Name : Anurag Ramteke
Age : 19
Department : CSE
Frequent Museum Visitor : No.
Technical background : Yes.

Name : Udayraj Deshmukh
Age : 19
Department : CSE
Frequent Museum Visitor : Yes.
Technical background : Yes.

Along with the team members, 3 more users also volunteered for the Cognitive Walkthrough.

Selection of Activities and Screens

The following activities were chosen on the basis of various reasons which are explained below each of the activities.
Also the corresponding screenshots of the prototype are added below each task.

Prototype

Total screens are shown at the end of the document.

Activities

For the usability of different features, following activities were selected.

1. Switch between the front camera and back camera

    1.1 open app

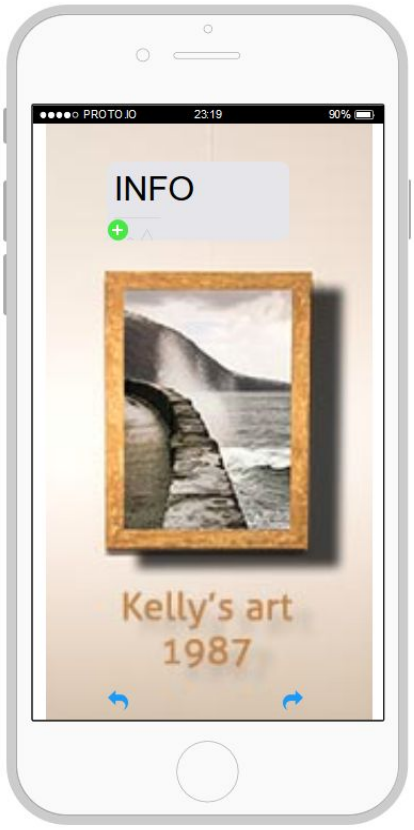
    1.2 navigate to camera tab

    1.3 Open the camera in the app

    1.4 Find a way to position yourself in the camera along with the monument in a clear view.

    Justification 1: Since this feature focuses on giving the user more interactivity with the device. Sometimes, the user may not get clear view with the back camera, then the user should be able to notice and use the switching camera feature.

    Screens :



2. Auto rotation feature

2.1 Orient the phone Vertically

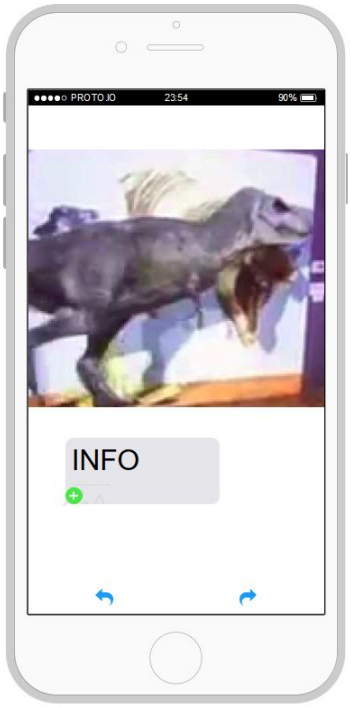
2.2 Point camera to a given monument to load AR information

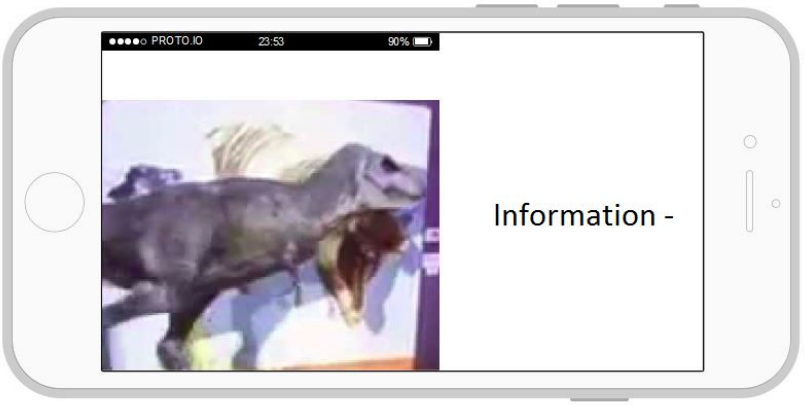
2.3 Orient the phone Horizontally

2.4 Take note of the changes in the screen

Justification 2: This task is required for addressing a potential readability issue due to phone orientation. If the information is going out of the screen, the user should use the rotation feature for adjusting the information frame.

Screens :





Instructions to team members:

> The ground rules of cognitive walkthrough were explained to the team members.

> Each of the task was presented

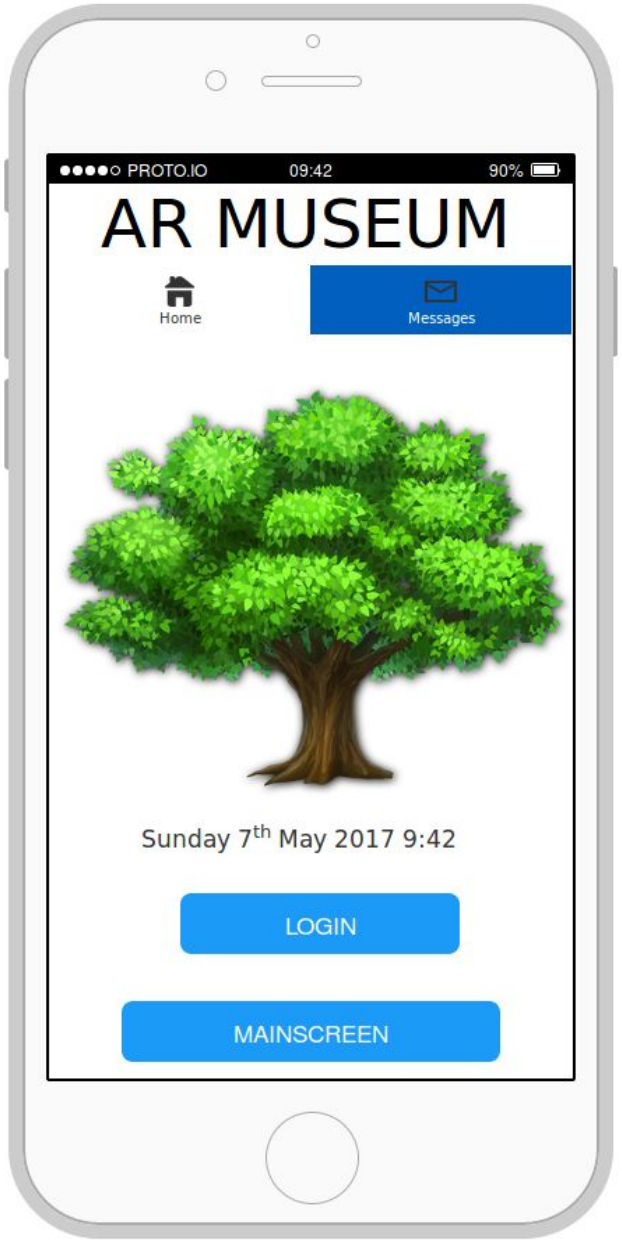
> Then the participants were told to perform the three tasks given.

> Then they were told to answer the questionnaire

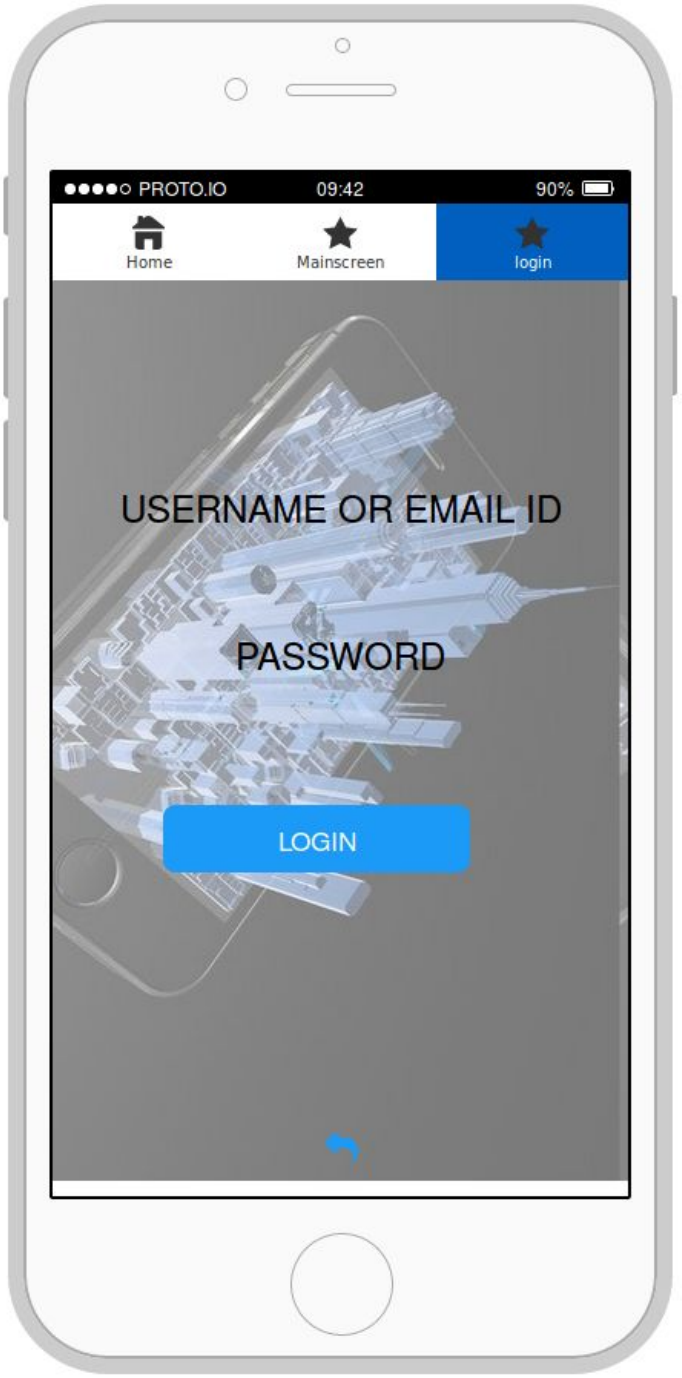
Questionnaire :

- What did you think of trying when confronted with the main screen ?
- Did you notice that the correct action is available to you?
- For achieving the task, did you think by intuition where to find the way for it?
- Did the system show proper feedback on doing a correct action?

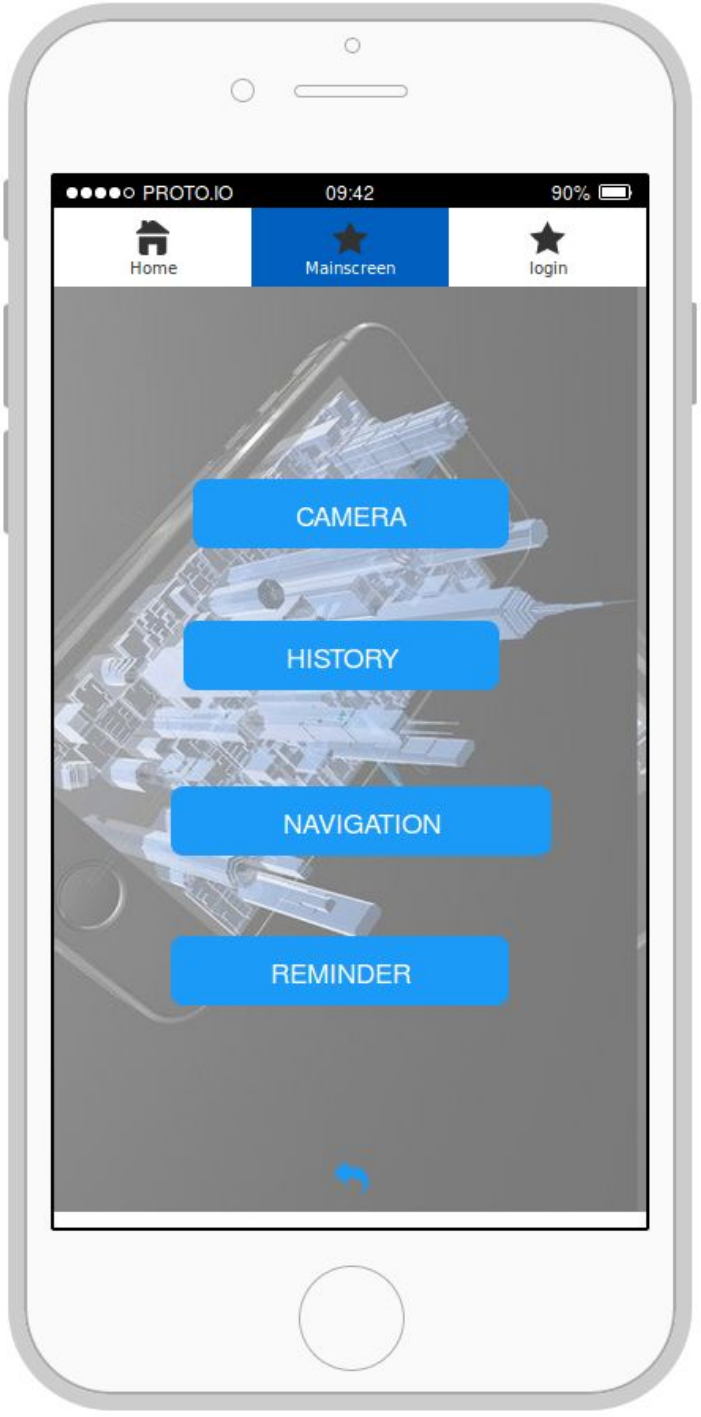
Prototype -



Home screen of the app when the app is opened

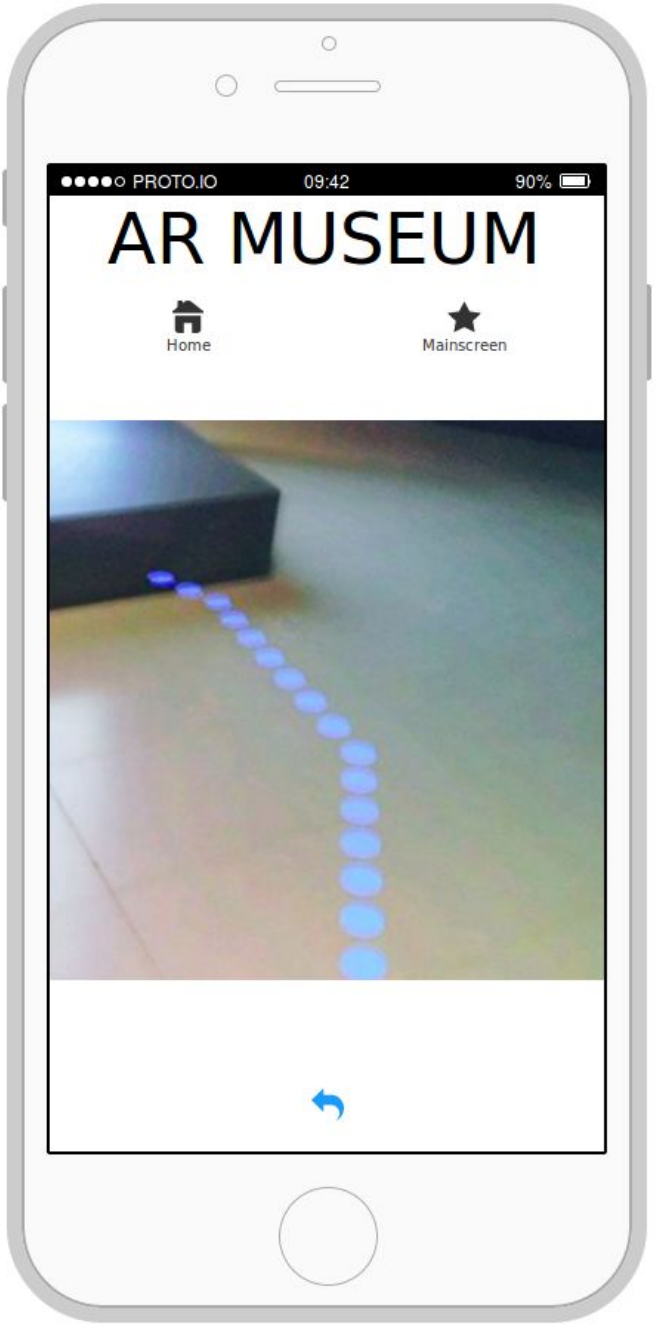


Login option for the user

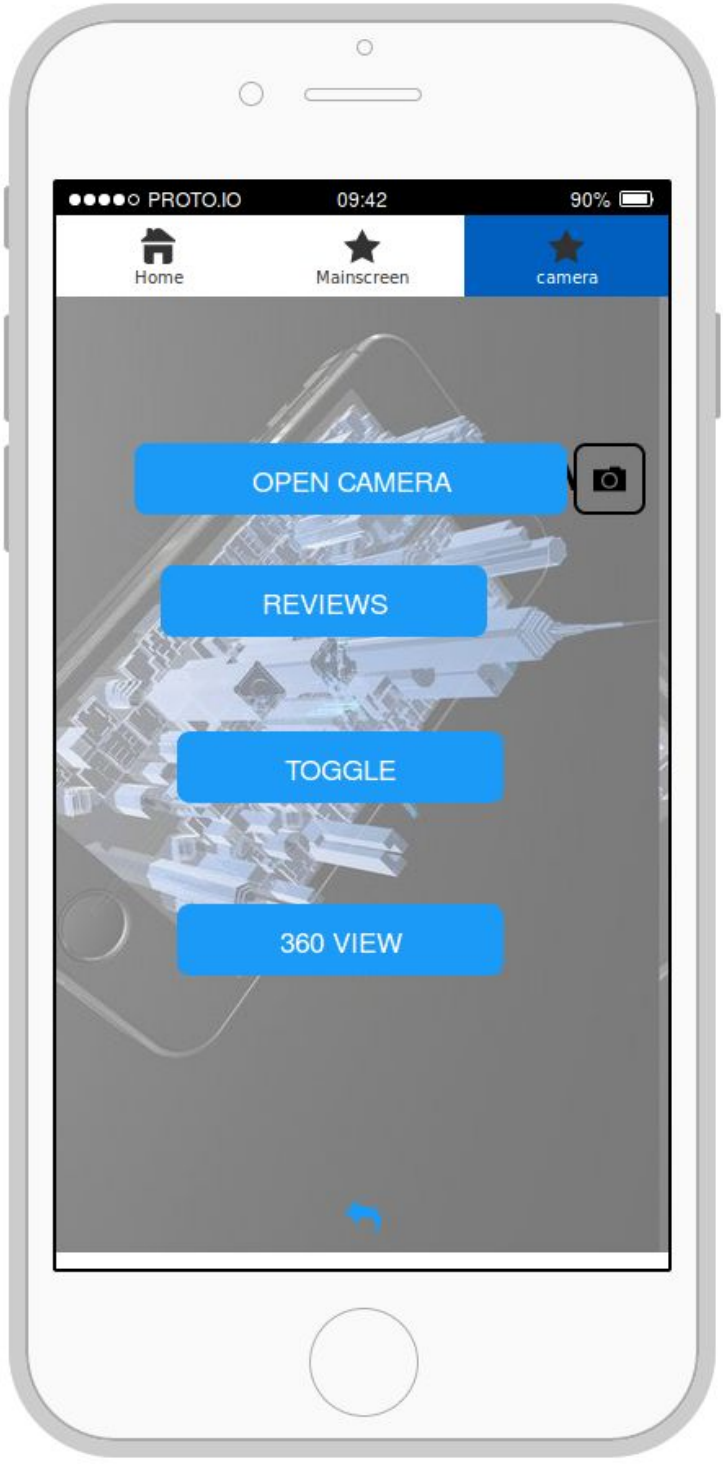


Main screen which is navigated from home screen

Navigation options

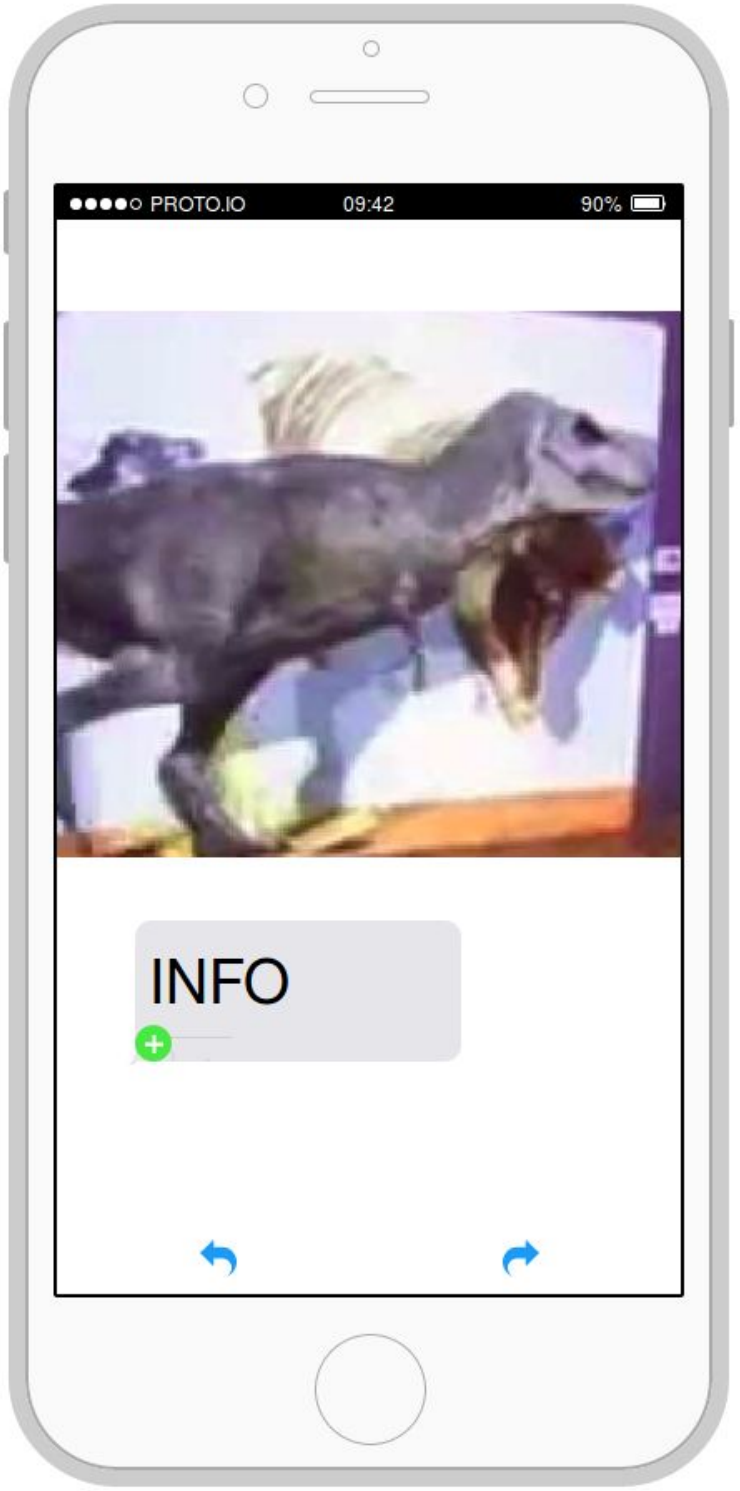


Footstep view of navigation

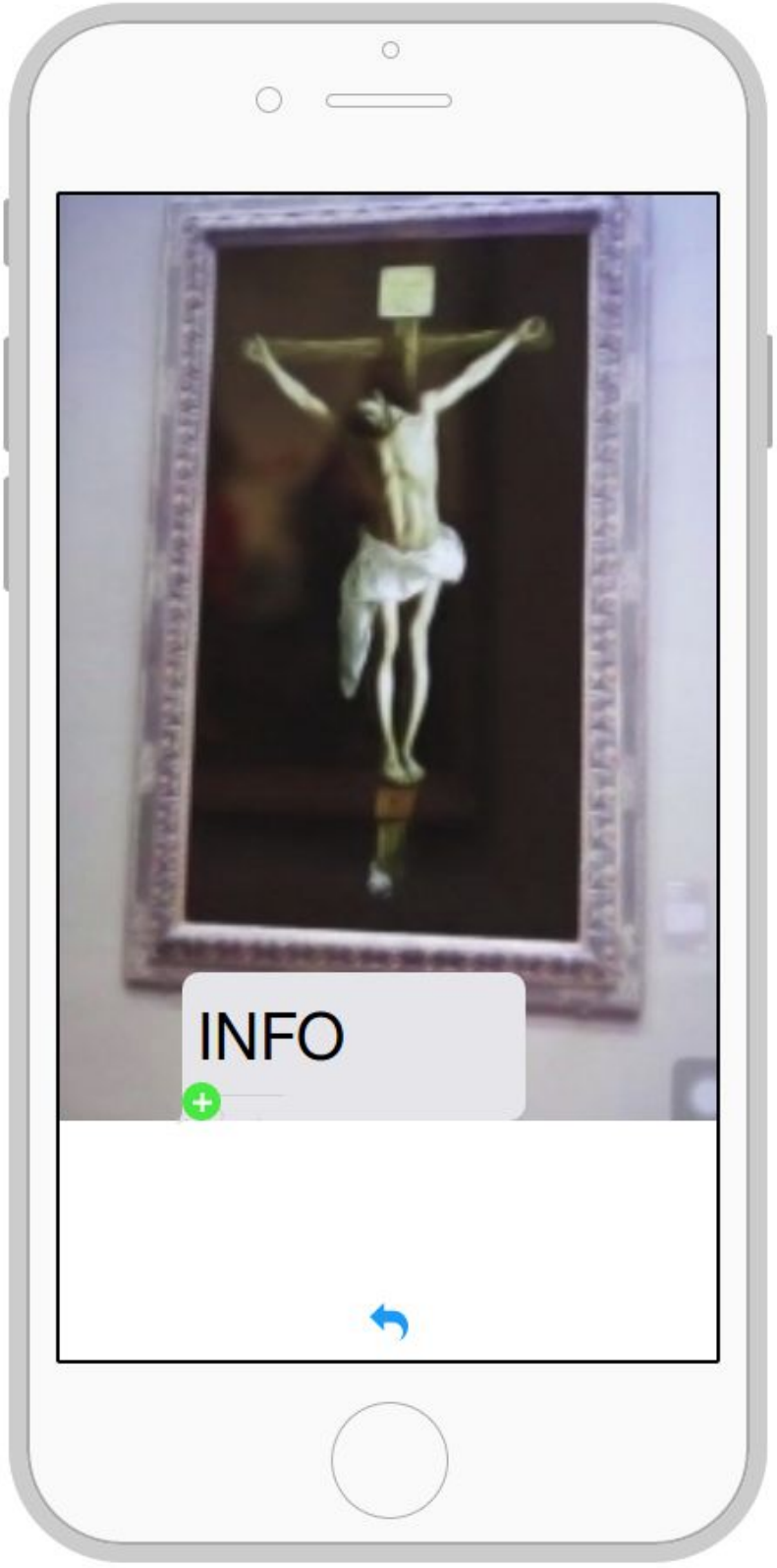


Camera options

Augmented reality photo example 1



Augmented reality photo example 2



Augmented reality photo example 3