CiMor

With Erasmus MC

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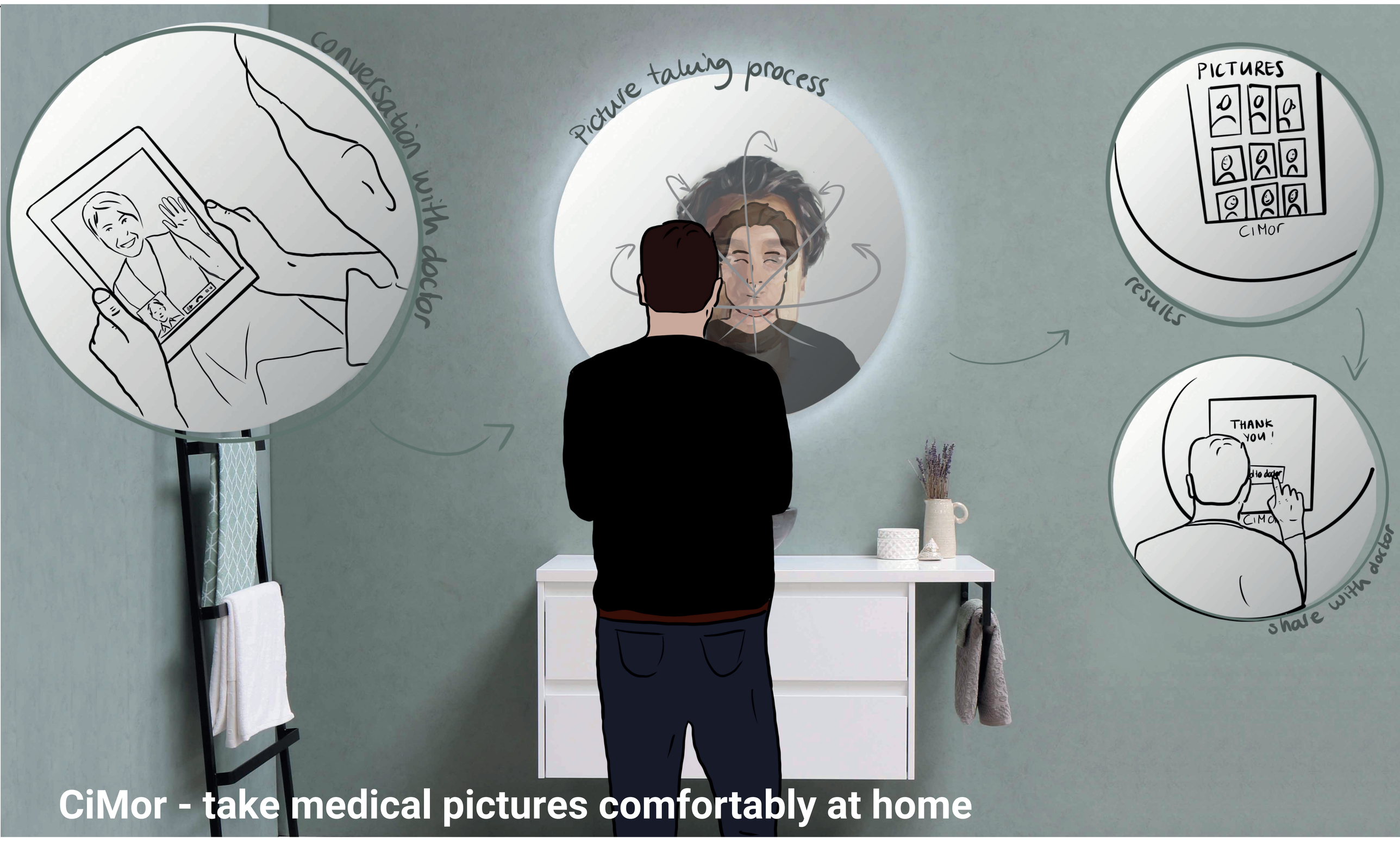

CiMor - take medical pictures comfortably at home

Patients who have a cancerous tumor in their face or breast can opt for plastic surgeries to restore the original shape of their face or breast.
Before, during and after these surgeries a lot of pictures need to be taken in a studio by a medical photographer. This can be experienced as an uncomfortable, confronting moment.

If patients take a facial plastic surgery they need to have several surgeries. During this process they have big open wounds and scars in their face. Their faces may never look the same.Therefore this picture taking process can be confronting.
For the breast surgeries, patients have to stand rather naked in front of the photographer. This can feel uncomfortable.

If these people encounter a camera in their everyday lives they may be reminded of this whole process, which can evoke negative feelings and emotions.
Therefore CiMor is shifting the medical picture taking process to a more private and comfortable environment: the own home of the patient.

CiMor will allow patients to take the needed pictures comfortably at their home. They will be guided through this process, so the medical staff get the required pictures with the right angles and positions.

CiMor
Via the secure hospital environment you get a video message from your plastic surgeon. She discusses the next steps in your medical journey and explains that you have to take some pictures.

The picture taking program, CiMor, is sent to your magic mirror in your bathroom. Once you have time and are mentally in the right state, you log in to the program by scanning your hand print. CiMor explains to you what is going to happen and how to use the program.

On your magic mirror you'll see a famous portrait. Your face is lightly blurred into it and you see the coordinates of your eyes and nose highlighted. You try to mimic the pose of the painting. CiMor is giving visual and audio feedback to tell you how well you're doing. Once you're standing in the right way CiMor snaps a picture of you and shows the next painting that you can mimic.

After all the pictures are taken, you'll see an overview of all the pictures that are taken of you and a confirmation that the pictures are all of good quality.
Next, you can send the pictures to your plastic surgeon. She will discuss the pictures with you during your next appointment. Now you're all done and you can continue with you day.

The exposition room is decorated to represent a living room and bathroom. The visitors are given the key so they get the feeling that it's their own house.

The video message of the plastic surgeon is prerecorded by one of the teammates who's dressed up as a doctor.

The picture taking prototype makes use of p5.js. It measures the coordinates of the eyes and nose with the help of Face Mesh. Once the coordinates align with the eyes and nose of the painting, the webcam takes a picture.
This process is repeated nine times. All the taken pictures are printed on the screen, but hidden for the user. In the end, they will all be revealed.

The begin and end screen are made in Illustrator. An animation is played to mimic the hand scanning process. One of the teammates will remotely click through the begin screen, start the p5 code and afterwards show the end screen.

In order to give the bathroom a futuristic look and to give the user visual feedforward and feedback, LED lights are added around the monitor (which functions as magic mirror). They will be remotely controlled.

Project by group 23: Kamran Rahmani, Leonie Sonneveld, Lise van der Ven, Hongxin Xu