Scottie is a means of play for children who are hospitalized, hence separated from their family and friends. Computers and phones are limited to the use of verbal or text-based expressions. Affective communication and feeling connected over distance is established by playing together.

Scottie is the Innovative Pilot Healthcare by Waag Society. Scottie’s aim is to explore possibilities of creating virtual intimacy through play with physical objects. Target users are hospitalized children, ten to fifteen years old, and their family and friends. The first challenge was to develop a playful gaming and communication tool. The second challenge is to research whether Scottie actually increases feelings of connectedness between hospitalized children and their loved ones. Currently, user research is being performed by letting ill children and their parents play with Scotties for several weeks.

Representation of dear ones
Scotties are playful, networked objects that enable children to maintain their roles as classmate, brother and son, next to their new role of ‘being in a hospital’. Scottie facilitates remote play and communication in an implicit and affective way. The design team created several interactive prototypes: functional demonstrators, paper prototypes or interactive ‘black boxes’ that illustrate an idea rather than a design. The prototypes have been evaluated with children, in order to better understand the role of sound, color, tactility, gestures, and play elements in the design. Prototyping throughout the design process not only served to evaluate ideas with users, it also helped the designers to develop new interactions.

The final Scottie prototype looks like an abstracted human figure. This figure serves as a representation of dear ones and also has an appeal in itself. Scottie facilitates two forms of play: creating light patterns and creating sound patterns.

Ill children were selected, in cooperation with ClinClowns, to play with Scottie for some weeks. Interviews with these children confirmed the appeal of having an emotional interface to dear ones. Further user research is currently being conducted in cooperation with Delft and Eindhoven Universities of Technology.

Wide-scale use of Scottie
Since the early test results were positive, wide-scale adoption and use of Scottie becomes a serious option. The user research will continue for some months. A customized version of Delft University of Technology’s Experience Sampling methodology is developed, which allows the researcher to record feelings and emotions real-time. The gathered quantitative and qualitative data will be analyzed and the results will be disseminated.

In addition, potential exploitation models are being researched, business partners are mobilized, and a plan for producing and distributing Scotties will be written. Waag Society cooperates with TNO to study the development of (social) exploitation models for GATE projects.