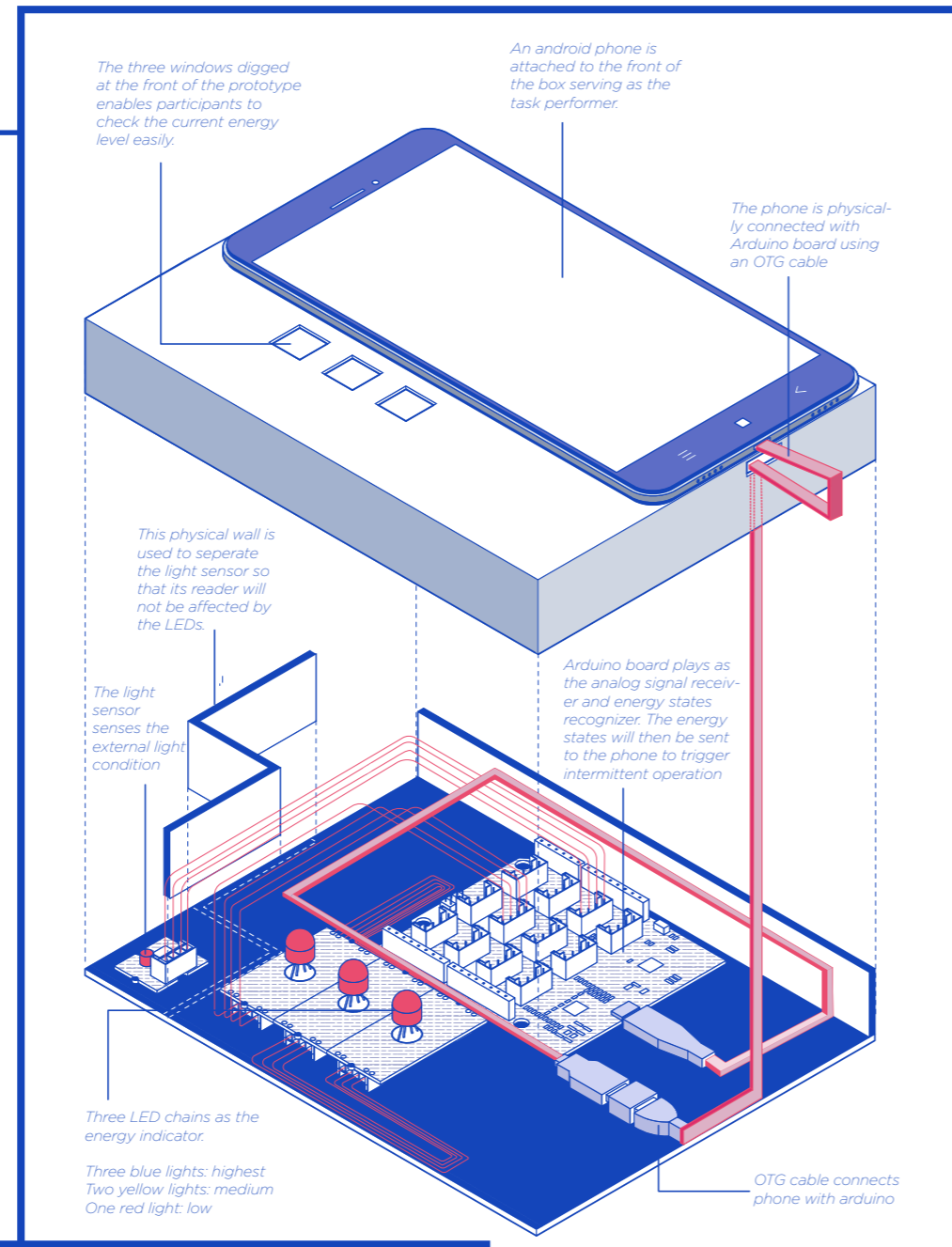
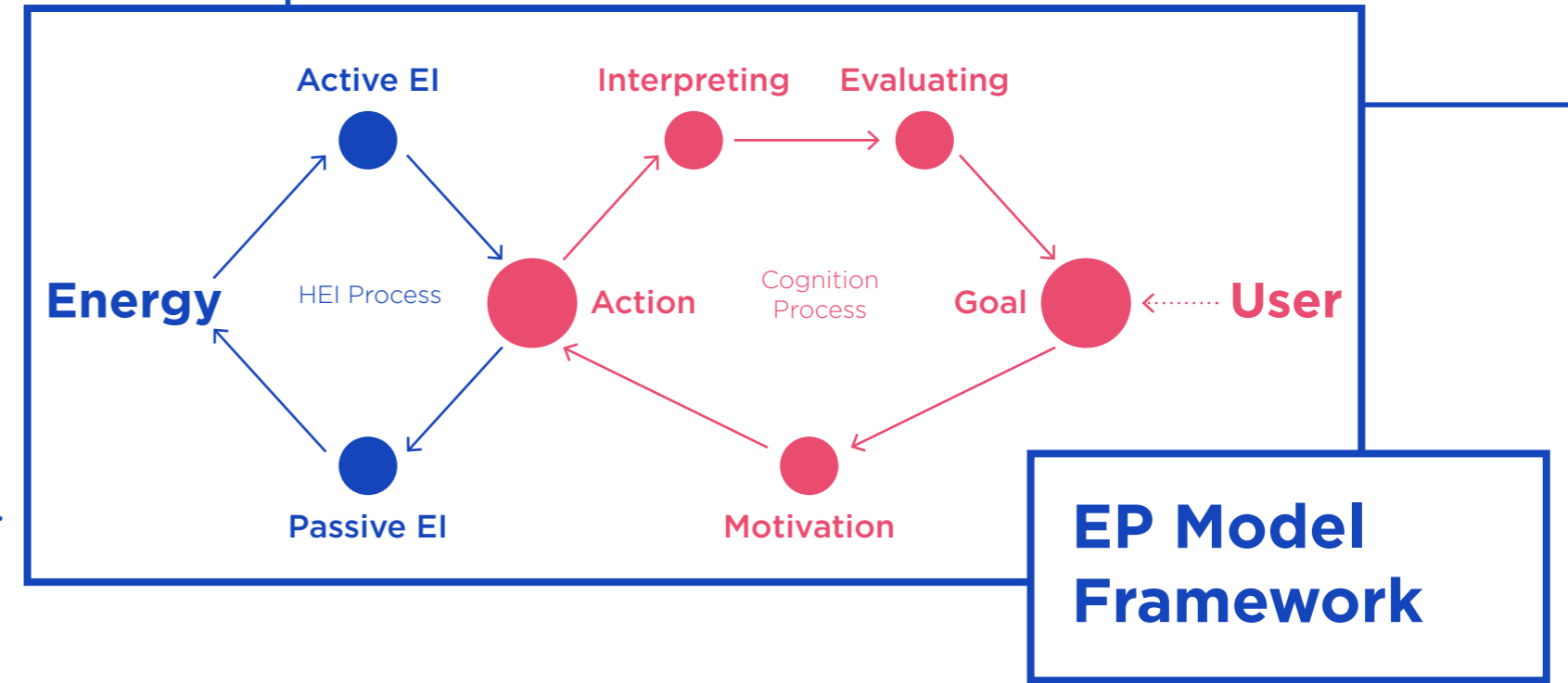


The design using digital prototypes as the central controller of the whole prototype. The energy harvesting simulator consists of a light sensor and 3 LEDs as an energy indicator. The main task is conducted by a UI prototype that is designed with Prototip, a popular prototyping tool that can receive Arduino signals and respond. Music will be played and controlled on the phone. After receiving the energy state sent from the Arduino board, the digital prototype respond with interruptions of sound and display. The frequency and duration of interruptions are related to the energy states. Through this, participants will experience an intermittent music experience



Prototype Design

This project proposes a new EP Model framework conceptualizing the relationship between users and energy in mobile devices. Two main processes are involved in the EP Model: **HEI process**, which describes the relationship between the user's actions and the Energy Interface, and the **Cognition process**, which articulate the procedure of information processing in the user's mind. **Action** serves as the connectors of two processes, indicating the energy-related actions that users take.



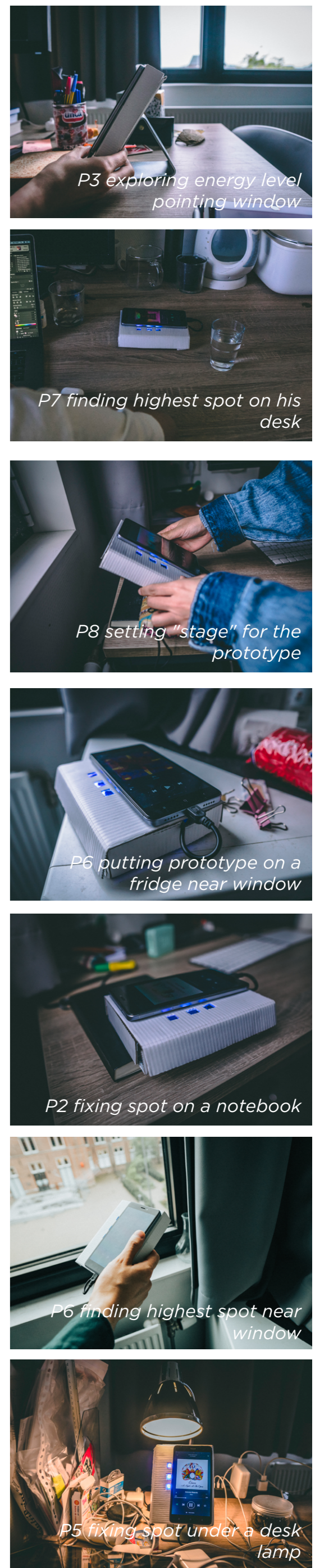
EP Model Framework

The central aim of this research has been to explore the current and future Energy Partnership between users and future intermittently powered devices. The Research-through-Design methodology has been employed, embracing online surveys, user interviews, prototypes design, and user tests to launch a collaborative discussion with interviewees about the possibilities of the future Energy Partnership.

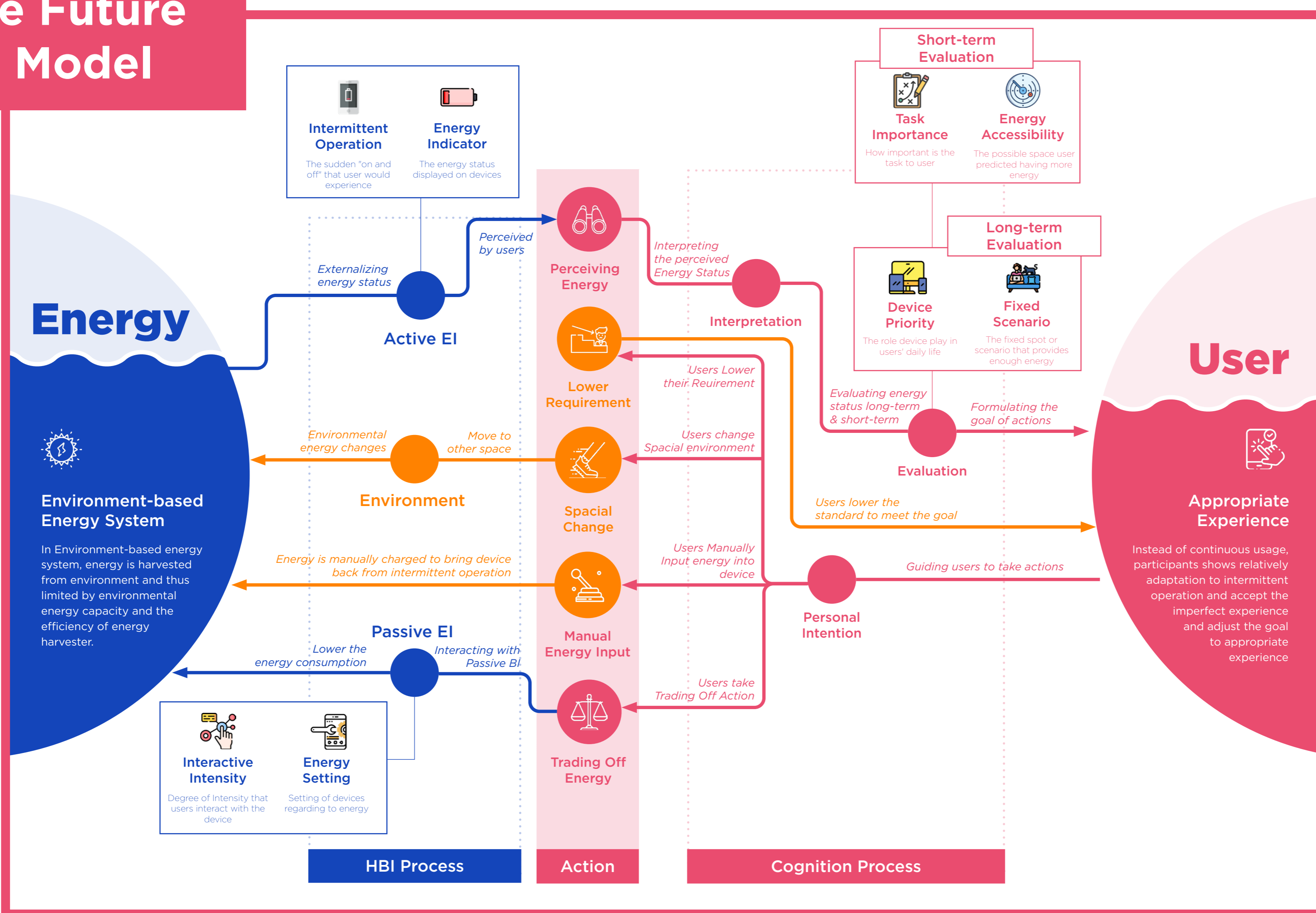
Factors Extraction

Designing Energy Partnership between Users and Intermittently Powered Devices

Prototype Testing



The Future EP Model



Bao Baihong
Designing Energy Partnership between Users and Intermittently Powered Device
26th of August, 2020
Msc Design for Interaction

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