Cleanliness and hygiene are top priorities in medical settings and for medical devices. Nevertheless, with growing awareness of climate change, a shift in focus to more sustainable and environmentally-friendly medical products is utterly relevant. De Geboortenis, a foundation in the Netherlands that helps pregnant women with delivery and counselling, has also realized this and has started redesigning their building accordingly. The autoclave, a steam sterilizer, is according to the foundation one of the largest energy guzzlers in their building and therefore requires a sustainable redesign as well. The results of this design project fulfill the aim of finding recommendations for a more sustainable autoclave. The solutions with respect to energy reduction include using less initial water in the device that needs to be heated up, using an immersed heating element to heat the water and turn it into steam, using heat-resistant nylon for better insulation to maintain the heat that has already been created, and using a heat exchanger between old and new water such that the old water already partially heats up the new, cold water, and therefore reducing the energy supply necessary. Besides this, the solutions focused on other aspects of sustainability are the device shutting itself off automatically after a certain period of time, which could for instance be fifteen minutes, using a combination of stainless steel, PE or PET plastic, iron, and filler plastic instead of aluminium as materials for the autoclave for better sustainability, integrating a "household cleaning" function to remove a step from the maintenance process and minimize water usage during that process, and using distilled water instead of tap water so chances of scaling are minimized and overall sustainability is improved. These recommendations have been discussed and evaluated with a focus on how effective, realistic, cooperative, and conforming to the drawn up requirements they are. The chosen solutions, which are the ones that came best out of the evaluation, were combined into one design proposal. This can be seen in the side-view design sketch presented in figure 1. The front-view user interface design shown in figure 2 shows the "household cleaning" function, the two sterilization settings, a fast and a sustainable one, and the two light indicators that signify whether a sterilization cycle is done or not. This means that multiple wishes, such as the wish about different settings, have been incorporated in the design as well. Since the chosen solutions and final design proposal were evaluated based on the previously drawn-up requirements and wishes, this design assignment's goal was achieved: implementing the recommendations that are presented in this thesis would make for a more sustainable autoclave compared to its current design. Aspects of this topic that could be researched more are user testing of the user interface, research into integrating it into the location better such that the used water from the autoclaves could be used somewhere else in the building, research into actual production of the design proposal which could be done by a manufacturing company to figure out its feasibility, a thorough market analysis on this design proposal to find out what an accurate price would be and whether it would have a chance on the market, tests on whether it conforms to the laws surrounding temperatures and durations that it should be able to handle, as it is still a medical device, and lastly more research on other aspects of sustainability, such as recyclability, would be very beneficial.