First the components that were required to design the device was chosen. The three main components used in the device is a microcontroller that interfaces with and controls all the chips, a GPS module, and GSM module (used to send and receive SMSs)

The schematic and PCB layout were designed in a free CAD software called EasyEDA. The PCB layout was sent to a factory to be fabricated.

After the components were purchased and the PCBs arrived from the factory, the board was assembled.

Software had to be made for the microcontroller so that the device would function properly. The software was created in the Arduino IDE and was programmed in C.

A case was also designed for the device, but it was never manufactured due to time constraints and the high cost of small scale 3d printing.

Lastly, the device was tested against the design criteria to determine how well it performed.