The project has been completed in all its functionalities and maybe more, but some limitations have been noted.

A concern among some group members was about the limitedness of the buzzer’s output. An idea of ours was to play some classical music over it, but being a simple piezoelectric buzzer, it cannot perform more than one sound at a time. Another limit was given by the led matrix, which is of a boring monochromatic red and only allows 8bit animations. The videogame display is also noticeably outdated (in fact, original Nokia 3310s were produced in 2000) and the temperature sensor is a really cheap one. Of course, the reasoning behind all of this is that we bought all the components using our funds and we didn’t deem necessary to buy anything more than the bare minimum.

A somewhat harder limit is given by the number of pins on the MCU. It would have been good to add more buttons or more buzzers (again, to play more complex music), but we are already using all the available pins. A possible solution would be using a more powerful MCU (Arduino Mega is an example) or buying an extension shield.

What we couldn’t make up for the hardware could have been made with the software. Possible future expansions may feature:

* Setting of multiple alarms
* Toggle temperature from Celsius to Fahrenheit
* Setting of a different timezone
* Switching from 24h to 12h