When a message travel through the atmosphere, it is likely to be corrupted by physical phenomena. To handle this issue, a correcting code is often used: the Reed-Solomon code. In order to implement the RS(204,188,8) Reed-Solomon code, I efficiently implemented a finite field : GF(256), and polynomials on this field. I then implemented this code using the PGZ algorithm. Thanks to this implementation, I discussed the performance of the RS(204,188,8) code, especially regarding error correction and coding/decoding delays.