Challenge: How Low Can You Go

The “how long can you go” challenge is meant to have the participants learn about/practice low level programming by doing fun challenges. The goal of this exercise is to get as close as possible as you to the hardware layer.

**What will I gain from this?**

* Microcontroller/computer architecture knowledge
* Efficient datasheet analysis skills
* Low level coding (Minimum lower than Arduino framework) skills
* A better understanding of communication protocols (USART, SPI, I2C etc.)
* Confidence when working with microcontrollers

**Challenge: How low can you go**

* Learn about the level under your current highest level
* Make 4 driver using this level of code (1 UART driver, 1 GPIO driver etc.)
* Choose a ”finished” medium” sized project and reprogram it on that level of code
* Test them on a microcontroller of choice (Fix if needed)
* Document what you learned (1 page is enough)
* Finished? Go back to step 1