Topic: Minimal Requirements Industry Project

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1. Software Design
   1. OOA, OOD
   2. Complex System (at least 2 classes that have their own state machines and communicate), the whole system has at least 6 classes
   3. Preferably: decentralised system (something like Occupancy Project)
   4. Design
   5. Unit Tests
   6. C++, it is allowed to write some parts in C too but for the sake of OOA/OOD C++ is preferable
2. Embedded Systems
   1. CB: free choice of platform, no special requirements (CB is already working on ES project)
   2. DB: At least 2 topics from Embedded Systems (low level programming), e.g. interrupts, timers, PID, multithreading/freeRTOS, PWM

(not necessary if you do Embedded Systems Project)

1. Communication
   1. Protocol Analysis : which communication to choose : research
   2. Protocol Analysis : what messages/data are being sent (belongs to Software Design too)
   3. Recommended communication protocols: MQTT, CAN, (web) sockets with justification of the choice!
   4. Warning 1: painlessMesh from ESP32 is not always painless and difficult to integrate in C++
   5. Warning 2: ESPNow can also be difficult to integrate in C++