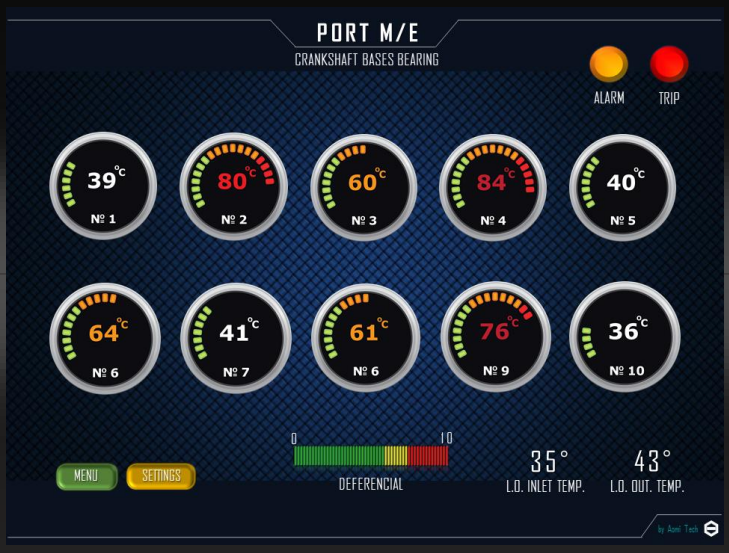
FLOWCODE × Aomi Tech

Temperatures Alarm & Monitoring System

For Marine Industry



www.aomi-tech.gr

Aomi Tech is a electronics automation systems manufacturer based in Greece and Japan.
Matrix Flowcode is our software partner ,a leading company in visual embedded programming software.
Introducing our Alarm & Monitoring systems for Marine and industrial Engines and Generators.

Is it possible to develop a complete system in less than 60 days?

The Temperature Alarm & Monitoring System was born after ordered by client. It didn't existed until then, but there was a catch. We had to develop a complete system in less than 60 days and install it in a commuter ship 80 meters long to keep their main engines safe from high temperatures.

We can make almost anything you imagine in no time With Flowcode

We manufacture cutting edge products for industrial markets reducing developing time and costs to a minimum, from nothing to a complete delivered product in less than 2 months.
In the following pages we will briefly explain our workflow and how you can make it possible.

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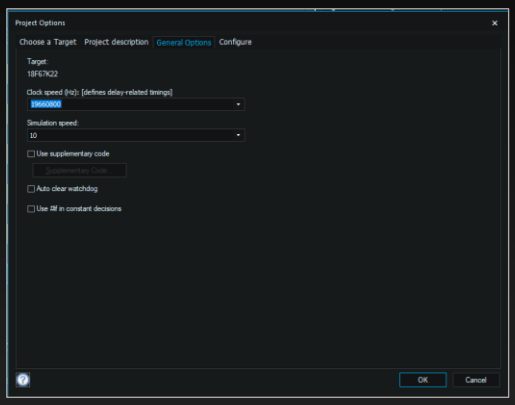
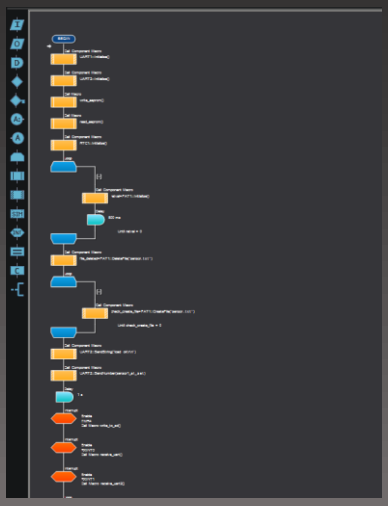
Workflow

We started by selecting our controller. After a rough study of our final program space and peripherals that we need we decided to choose.



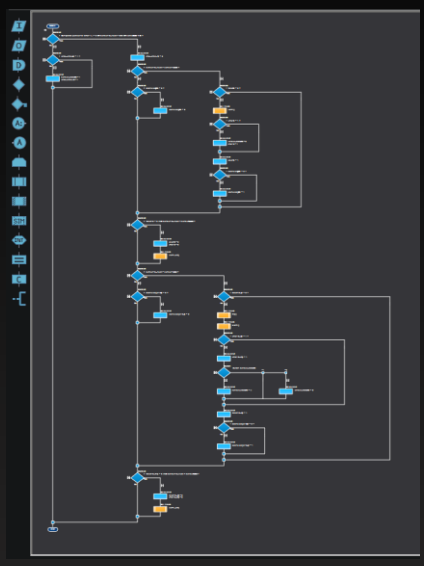
We fixed the settings, our clocks and few configurations. As simple as that we started.

Then we started initializing our peripherals (UART1,UART2,EEPROM,RTC,SD CARD and some interrupts) no time consuming code writing. Just drag a box add your settings (guided from flowcodes wiki, forum or flowcode staff). All the above finished in the below space in less than 10 minutes.



After finished our starting settings we started adding our temperatures collection section using flowcodes library "THERMOCOUPLE (MAX31855)" just drag and drop few address settings and you are done!
We receive the values and we have a decision tree for alarm or shutdown the engine by using the output boxes.

In the meantime we also write the alarm in a SD card in an Excel file. (also plug and play from Flowcode).



Last but not least we communicate with a wireless device though WIFI using the wonderful component from flowcode the esp8266. Very well documented we use it as a uart bridge to send our data to a android or apple or even windows device.

After the software design is complete we prepare the PCB design. This board has a dual power supply 24vDC and 220vAC, output relays, battery for clock, our pic, max31855 modules,esp8266 antenna etc. Next step enclosure design. 3D print test model and then order from plastic manufacture. With its almost unlimited number of MCU supported and even more for sensor libraries , communications protocols libraries and so on. We knew we could make it on time!! Our final product installed and fully operations in less than 60 days.