EMBEDDED IMPLEMENTATION OF A REAL-TIME SWITCHING CONTROLLER ON A ROBOTIC ARM

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- New version of MARTe C++ framework has been developed with a software architecture aiming at enabling the execution of the same code across different bare-metal systems.
- The control algorithm to drive the DC motors of the robotic arm is based on a switching PID theory.
- Hardware in the loop control system simulation has been implemented.

This work presents and compares the performance of the control algorithm implementation on a bare-metal and on a FreeRTOS deployment.

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