Development of an IoT-Demonstrator for an industrial machine tool

Background
In order to enable condition monitoring and predictive maintenance, machine data needs to be made accessible for analysis. For machine tools that means accessing the computer numeric control (CNC), extracting the available signals, storing them in a data basis and building a front end for analysis.

Objective
In this challenging project, students should develop a C/C++ application for accessing machine tool signals from a Bosch Rexroth CNC, develop and implement an infrastructure for communicating and storing the signals as well as develop a python based frontend IoT-Dashboard for the visualization and analysis of the data. The project can start anytime. Groups of students are welcome to participate, as well.

Requirements
C/C++ or Java programming experience, python programming experience, a strong interest in solving real-world problems for industrial settings and a strong motivation to build new skills.

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