

## Feasibility study of a low-cost RCP system using an open source platform for the development of battery control systems

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**Summary:** Modern battery management systems monitor every single cell of the battery system and thus enable safe operation. In addition, they contribute to a better utilisation of the battery, predict the residual amount of charge, and protect the expensive battery system from damage caused by improper operation. Many of the battery management systems already in use are, however, not mature enough, and cannot therefore ensure the aforementioned benefits.

The aim of the study is to investigate a low-cost rapid control prototyping system with open source system, for the functional development of rules for the management of lithium-based battery systems. Low-cost hardware and software will be used especially. Furthermore, the main battery management functions are to be made available as open source software. These measures are intended to put SMEs, in particular, in a position, both financially and through the provision of the methodology and the basic functions, to design battery management systems independently and customise them to the relevant battery system.

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