

Bringing RIoT-OS to the RIoTboard

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Softwareproject - Telematics, 2014





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 - have fun coding
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- what did we expect to achieve?
 - get the hardware for free
 - basic support of the RIoTboard for RIoT-OS
 - be motivated enough to continue working on the port after the software-project





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 - wiki pages
- milestone arrangement
- milestones have dates assigned



- get familiar with the board
 - boot it, read manuals and documentation
 - try features with existing OS that supports it
 - understand target architecture
 - ► flash it
 - cross-compile
 - be able to actually run bare-metal code
- ▶ find out what needs to be done for a port
 - ▶ identify re-useable code
 - ▶ learn about interfaces in RIoT
- port it
 - patch SDK for use in RIoT
 - successfully build
 - debug





▶ all goals reached



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- ► spaghetti





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- reality:
 - ▶ i.MX6-reference-manual
 - the status of a GPIO-pin is determined by a bit in a register that can be anywhere based on the configuration of the muxer
 - names of channels in the muxer are from the same namespace as the functions mapped onto them
 - RIoTboard-schematics
 - one LED on the RIoTboard is connected to a function "EIM_DATAwx" which you can then map GPIOyz on





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- ▶ maybe looking at how they did it for their u-boot- and linux-ports helps?
- reconsideration: the i.MX6-platform-SDK has macros to abstract to and from the muxer config







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- ▶ RIoT has its own abstraction for each of those (dividing the sub-topics differently)



DEMO (of printfs and flashing LEDs)



- ▶ #1355 was closed in favour of #1359 Leon had trouble keeping the git-log tidy
- ▶ #1359 was merged with the help of staff members and RIoT-maintainers.
- ▶ #1411 is still pending and we do not know whether it will be merged.

Perspectives



- ▶ still motivated
- perhaps scrap the existing code and restart

