## **HY-controlboard**

Generic purpose control board for measurements and control

Version 2.3 Schematics

Known issues, date: 2018-10-04:

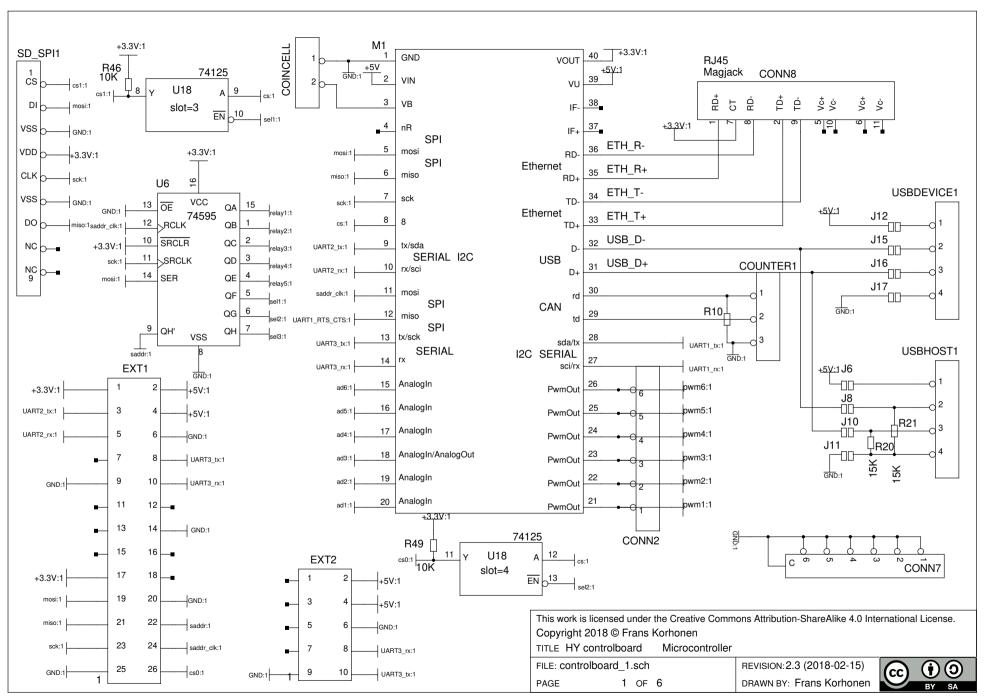
- -Pull down & down resistors need to be added for rs485/422 . (eg. 750ohm)
- -R39, R44 removed. Caused unwanted echoing in serial.
- -10K pull-up needed for serial1 RTS. Connect between J43 and 12V. (RS485 transmit need to be non-active when serial1 cable disconnected.)

HY controlboard - Generic purpose control board for measurements and control Copyright (c) 2018 Frans Korhonen

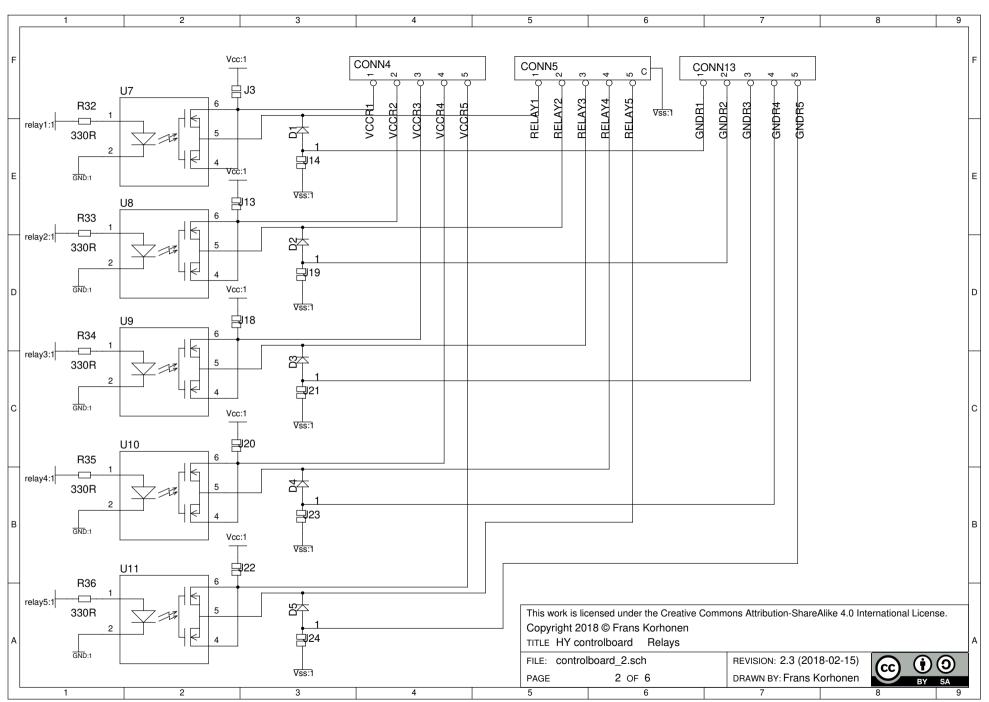
HY controlboard was originally developed at Institute for Atmospheric and Earth System Research / Physics, Faculty of Science, University of Helsinki, Finland

Assistance, experience, and feedback from following persons have been critical in the original work: Erkki Siivola, Lauri Ahonen, Juha Kangasluoma, Pasi Aalto, Markku Kulmala and Tuukka Petäjä.

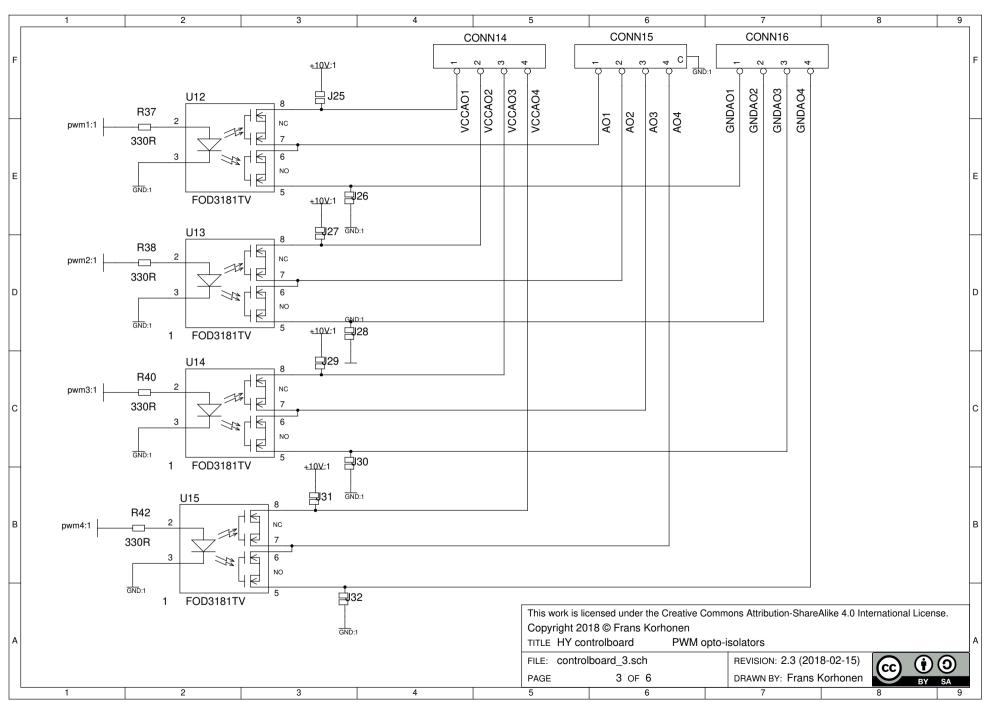
This work is licensed under the Creative Commons Attribution-ShareAlike 4.0 International License.



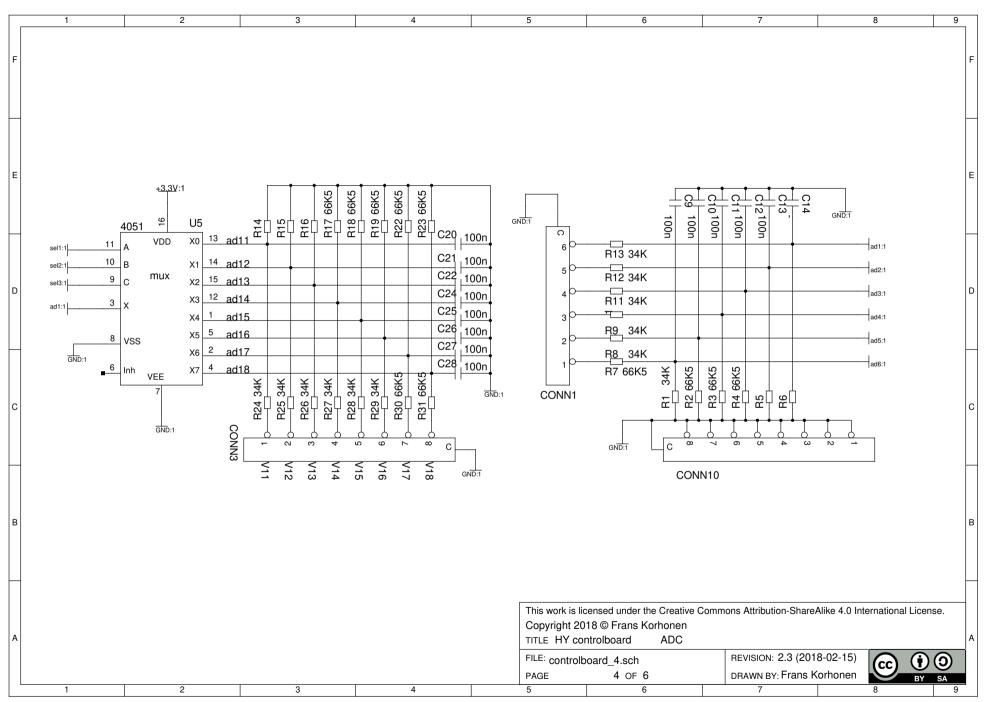
HY controlboard was originally developed at Institute for Atmospheric and Earth System Research / Physics, Faculty of Science, University of Helsinki, Finland Assistance, experience, and feedback from following persons have been critical in the original work: Erkki Siivola, Lauri Ahonen, Juha Kangasluoma, Pasi Aalto, Markku Kulmala and Tuukka Petäjä.



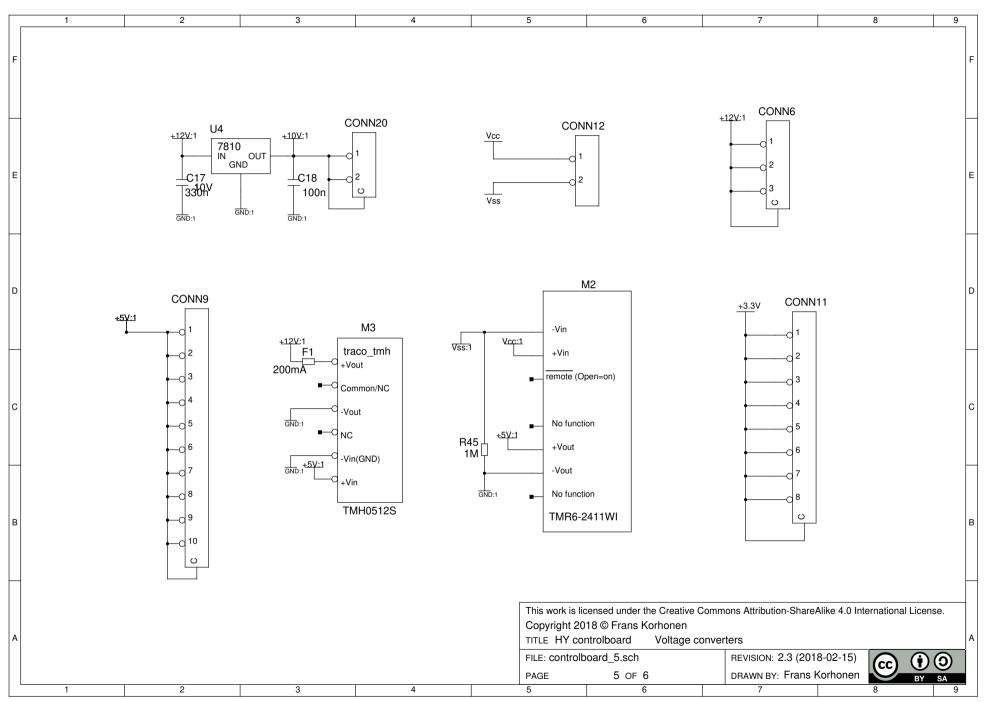
HY controlboard was originally developed at Institute for Atmospheric and Earth System Research / Physics, Faculty of Science, University of Helsinki, Finland Assistance, experience, and feedback from following persons have been critical in the original work: Erkki Siivola, Lauri Ahonen, Juha Kangasluoma, Pasi Aalto, Markku Kulmala and Tuukka Petäjä.



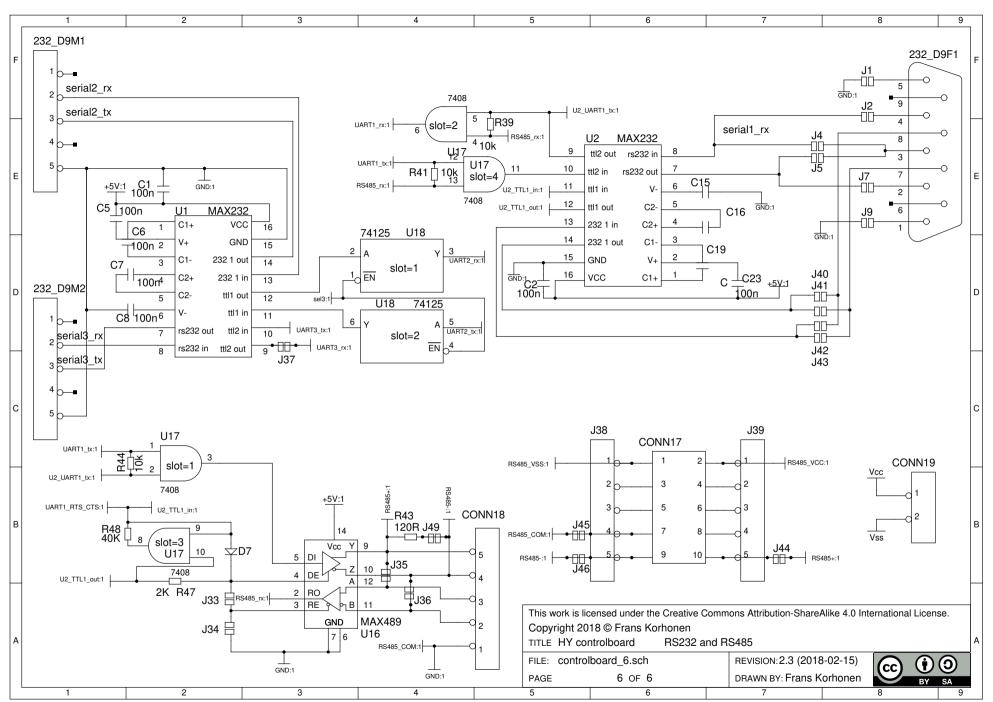
HY controlboard was originally developed at Institute for Atmospheric and Earth System Research / Physics, Faculty of Science, University of Helsinki, Finland Assistance, experience, and feedback from following persons have been critical in the original work: Erkki Siivola, Lauri Ahonen, Juha Kangasluoma, Pasi Aalto, Markku Kulmala and Tuukka Petäjä.



HY controlboard was originally developed at Institute for Atmospheric and Earth System Research / Physics, Faculty of Science, University of Helsinki, Finland Assistance, experience, and feedback from following persons have been critical in the original work: Erkki Siivola, Lauri Ahonen, Juha Kangasluoma, Pasi Aalto, Markku Kulmala and Tuukka Petäjä.



HY controlboard was originally developed at Institute for Atmospheric and Earth System Research / Physics, Faculty of Science, University of Helsinki, Finland Assistance, experience, and feedback from following persons have been critical in the original work: Erkki Siivola, Lauri Ahonen, Juha Kangasluoma, Pasi Aalto, Markku Kulmala and Tuukka Petäjä.



HY controlboard was originally developed at Institute for Atmospheric and Earth System Research / Physics, Faculty of Science, University of Helsinki, Finland Assistance, experience, and feedback from following persons have been critical in the original work: Erkki Siivola, Lauri Ahonen, Juha Kangasluoma, Pasi Aalto, Markku Kulmala and Tuukka Petäjä.