

Customer

Research and production complex Kontakt develops and supplies control panels, membrane switches, indicator dials.

The main customers of the company are manufacturers of specialized machinery, trade scales, dispensing apparatuses, welding machines, measurement devices, heat, water, and gas meters, flow meters, taximeters, flaw detectors, machine tools with cnc.



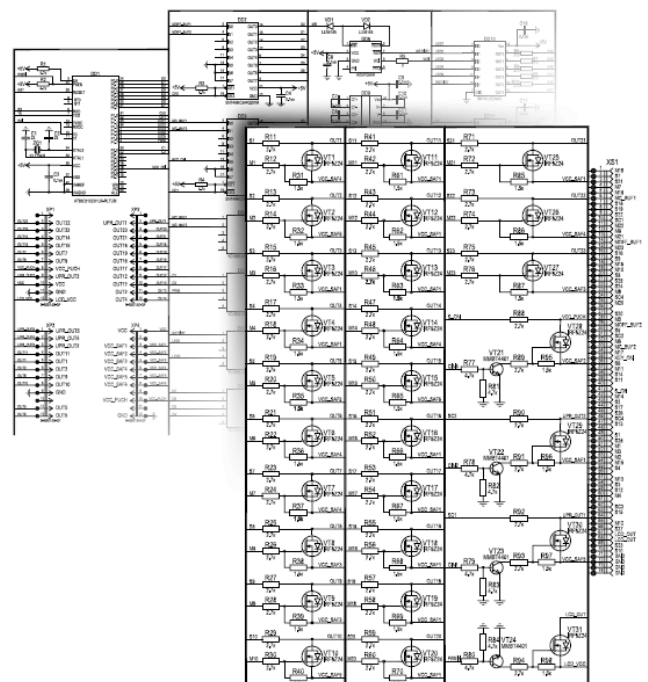
Objective

The objective was to develop, conduct experiments, and prepare design documentation for mass production of a control panel that manages the agricultural machinery inventory Polesie-800. The team was challenged to create reliable control panels, conduct experiments and prepare mass production by the start of harvesting campaign.

Solution

A schematic diagram was developed on the basis of the AT89C51CC03 microcontroller, a CAN interface was implemented for further scaling of the device and connecting of additional equipment.

Power outputs and power circuit were protected from polarity reversal, short circuit, and overvoltage. There is also a possibility of fine adjustment of keyboard highlighting, on-board programming, and firmware update. A modular design allows using a controller with a wide specter of various panels.





Benefits and features

- CAN interface;
- Modular design.

Design tools	IAR, PCAD, AutoCad
Technologies	CAN
Programming languages	C
Project management tools	dotProject, MSProject, CVS
Efforts	37 man-days
Duration	1 month