

DEVELOPMENT OF A PROGRAM FOR COLLECTING AND PROCESSING DATA FROM ANALOG SENSORS IN ROBOTIC SYSTEMS

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This article describes the basic algorithms of the program for collecting and processing data from sensors, used in the analysis of data from analog sensors in robotic systems. The developed program implements a survey of several sensors using the COM port, data output in numerical and graphical form on the screen, calculation of sensors signals parameters and saving the results of work. Sensor data analysis includes calculation of maximum, minimum, average signal values and the integral and differential readings of the sensors. The results are saved as a file with a table in csv format or as an image in jpg format. The calculations of the signal parameters carried out in the program make it possible to assess the effect of noise on the signal and choose methods for its elimination, including due to the proportional-integral-differential (PID) controller.

Keywords: sensors, PID controller, data acquisition.

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