

Universal cable tester based on National Instruments modules

1. Purpose and objectives of the project

When working with electronic equipment, trivial errors related to, for example, a connection can take many hours of work devoted to finding the cause of the incorrect operation of the system. The project aims to create and program a Universal cable tester based on NI modules. The assumption is to use the NI modules (e.g., myRIO, myDAQ) to record high states on appropriate outputs and as a system for reading high states from appropriate inputs.

2. Tasks for students:

A student that will be responsible for this project should build a universal tester that requires doing:

- a. Conception of the device connections (e.g., AutoCAD)
- b. Conception of the cover box for the device (e.g., Inventor)
- c. Conception of the connections any connector to the device (e.g., Word)
- d. Preparation of the prototype board of the device (manual work)
- e. Testing the prototype (LabVIEW)
- f. Preparation of the cover box for the device (manual work, 3D printing)
- g. Mounting the device inside the cover box (manual work)
- h. Preparation of the documentation (e.g., Word)

Note:

To better understand the project, check other projects that this supervisor offers to students.

It is possible to continue cooperation, for example, in the form of an engineering or a master's thesis and further scientific contacts.