

## CASE STUDY: CABLEJOG

### THE BRIEF

CableJog are an SME established in 2003, based in Warrington, Cheshire. They design, manufacture, and market low voltage cable testing equipment for the audio, lighting, video, and network sectors. Their products are a mix of handheld or rack mounted products depending on the application.

CableJog wishes to expand their product range into multi cable testers with optional cloud capability for remote testing and data collection through appropriate software interfaces. The new products will have the capability to measure cable characteristics, such as current, resistance and high voltage insulation, in real time.

### THE APPROACH

The CW 4.0 Team at Liverpool John Moores University (LJMU) have collaborated with CableJog, to deliver the new circuit designs and provide digital solutions to accurately determine and measure these cable characteristics.

This approach will enable CableJog to design, development and manufacture new products for growing markets, particularly multi pin connectors, such as the industry standard Socapex 19 pin connectors, used in industrial and entertainment industries.

The project has made use of the significant Electrical and Electronic Engineering (EEE) capability at LJMU, to design, build and test the required digital solutions. These solutions were delivered as a Group Project by a Team of Final Year EEE Masters Students which included extensive research of circuit designs and sourcing of suitable components, meeting client specifications and target costs.

### THE BENEFITS

It is expected that the results generated by the Project will assist CableJog to bring innovative multi-cable testing products to the market. This has the potential to open new markets for them leading to an expected increase in turnover, profitability, and overall growth for the company

From the Student's perspective: "this was a challenging and rewarding project, as it gave us experience with working with a client before graduating and going into industry. Furthermore, the project allowed us to improve both our teamworking and organisational skills through the planning of weekly meetings and development of the Gantt chart to track any progress made"

Finally, this CW4.0 project may enable further industrial links to LJMU academics, to develop collaborative opportunities and unlock expertise within the research environment, that can be used to develop future digital solutions.