

CROWDSOURCING AND SURVEY TOOLS

The U4IoT crowdsourcing tools are composed of three elements: a mobile application with a strong focus on crowdsourcing and crowd-sensing; a website permitting interactions between users and IoT devices (users' smartphones and the IoT testbeds' sensors and actuators); and a survey tool.

The U4IoT crowdsourcing and survey tools will be available on U4IoT website in December 2017.

The [IoT Lab website](#) and [survey tools](#) are already active and the application will be made available through two ways:

- Google Play for Android smart phones.
- Apple App Store for iOS smart phones.

All the tools were developed and tested as part of the [European IoT Lab project](#) and then improved to fit with the requirements of U4IoT. The IoT Lab project was supported by the European Commission in the 7th Framework Programme for Research and Technological Development under the grant agreement number 610477 from October 2013 to September 2016. IoT Lab is a research platform exploring the potential of crowdsourcing and Internet of Things for multidisciplinary research with increased user interactions.

The mobile application is an improved version of the mobile application developed during the IoT Lab project. The main features of the mobile application are as follows:

- The ability of the mobile application user to participate in research and related experiments.
- The sharing of data generated by the smartphone's sensors.
- The ability of the user to participate in surveys linked to research.
- The ability to propose new ideas and suggestions.
- The ability to rate ideas proposed by other users.

The main limitation of the IoT Lab mobile application was that it was only available on Android phones. The updated application for U4IoT has been rewritten using Xamarin meaning that it is now also available for iOS.

The user interface has been updated with a new, more modern look that aids the user experience and several bugs in the original application have been fixed.