

# Project Ara Module

## Infos

- [MDK](#)
- [Verbaute FPGAs in den Modulen](#)
- [UniPro](#)
- [Meta Tools Demo](#)
- [Build Environment Setup](#)

## Ideen

- Multimeter-Modul
  - erweitern um Logikanalyzer + Oszilloskop
    - Etwas Inspiration: [Novena OpenSource Laptop Oszilloskop](#)
  - magnetischer Connector an den man alle möglichen Messsonden anschließen kann
    - Bsp Connector: [USB Magnet Connector](#)
- Wireless Power Modul
- Maussensormodul
- Software Defined Radio Modul
- kleines E-Ink Zusatzdisplay
- Fingerabdruckscanner
- Strom- und Rohrleitungssucher
- Sensor Modul → Farbsensor / Lichtsensor / Luftdruck / Höhe / ...

## DevKit Antrag

### Briefly describe the nature of your interest in the Ara platform

Modular and transformable technology is the future. FabLab Karlsruhe is a relatively new institution but already many very capable professionals joined us in the pursuit of new technology. We want to work on our own ara module because we are enthusiastic for the ara approach and want to participate in the prize challenge.

### Briefly describe your module idea

A Multimeter or Multitester module which is able to measure various electrical properties like voltage, current and resistance. We have a lot more ideas and will probably work on a few of them but we chose to highlight this ideas because this is a module that we would use everyday and is something we can't do with a smartphone yet.

### Briefly describe the targeted users of your module and the potential market

Since it is a highly specialized module the market won't be anywhere near the potential market for a

GSM module for example but the market movement is growing. As Arduino, Raspberry Pi and many other new electronic platforms grow so does the accessibility of electronics development. This tool won't only be interesting for tinkerers, inventors and electronic technicians, even the everyday handyman and household DIY fan need a multimeter on a regular basis.

**Briefly describe the estimated schedule of activities planned to develop your module**

Since we want to participate in the prize challenge we want to have a working proof of concept until 1. Sept. and a working prototype until 30. Sept. We will have weekly meetings to discuss what we did the week before and plan to do the next week.

**Briefly describe the source of funding for these development activities**

We are enthusiasts and our efforts will be self funded. We work on the project on our freetime.

**Briefly describe relevant previous projects**

Many of our team members have build their own 3D printer, designed electronic and mechanic systems from small hobby projects to full fletched mass market products.

**Links to relevant project or portfolio**

TODO

**Briefly describe your team's relevant technical competencies (e.g. PCB design, mechanical, Linux and Android)**

Our team has members with experience in Linux and Android development, Mobile App development in general, general electronics know-how in various categories (PCB design, arduino, raspberry pi, ti launchpad), managing and executing complex projects in short time periods and using the scientific approach.

**Which prototype interface do you intend to use? Check all that apply (I2C, I2S, SDIO, GPIO, DSI)**

I2C

**Prize Challenge Submission**

<http://www.projectara.com/entry-form>

**Describe the features of your module**

TODO

**Describe your development plan between now and the final submission deadline on September 30, 2014**

TODO

**Describe your development team**

TODO

**Link to video demonstration**

TODO