

# Atmel AVR University Program

The Atmel AVR RISC microcontrollers, with reprogrammable flash program memory, well defined and easy to use instruction set and high-end yet low-cost development tool chain, are ideal for educational use in courses, laboratories and projects.

Atmel has an AVR University Program to support and assist the Universities in experiencing the benefits of using AVR microcontrollers. By offering a very affordable set of development tools, microcontrollers and documentation, the educators get a leading start in incorporating an advanced and modern educational platform in electrical engineering and embedded design in their curriculum.

## **Who can apply?**

Any technical university all over the world can apply to be part of the AVR University Program. An approval is valid for the whole institution, but every department can apply separately if adequate. Only permanent staff members of the University can submit the application form on behalf of the university or department. The person signing the application will be assigned as the AVR University Program contact person. Professors, Researchers, PhD students, and even regular students can take advantage of their university's program approval, by getting access to the same benefits to purchase tools for educational projects. For a university program order to be approved, it must be ordered with the shipment address of the university and with a reference to the AVR University Program contact person. The university must therefore first be officially registered to the AVR University Program before any discounted purchase or shipment can be approved.

## **How to apply?**

To apply, after reading this flyer, complete the AVR University Program Application Form on the last page. Then send the completed form to [avr@atmel.com](mailto:avr@atmel.com).

## **What are the benefits?**

As an AVR University Program member you will be granted restricted access to:

1. 50% discount on all Atmel AVR development tools and microcontrollers
2. Authorization to apply for a donation of up to ten complete laboratory sets
3. Be listed and get access to a list of all AVR University Program members

### **1. 50% discount on all Atmel AVR development tools and microcontrollers.**

To support the universities and their students in running educational projects with the AVR microcontrollers, Atmel is offering a general 50% discount on all Atmel AVR products. The complete range of design tools, microcontrollers and documentation enables the universities to customize their own laboratories with any combination of design tools in a way that will suit their courses the best.

The purchase is organized through an on-line web distributor, or sometimes through a local distributor. The university can order more development tools and microcontrollers as often as they find it convenient.

### **2. Authorization to apply for a donation of up to ten complete laboratory sets.**

To enable your university to experience the AVR products in an education environment, Atmel is offering a limited donation of up to ten (10) complete predefined sets of development tools, AVR microcontrollers and documentation. The sets include all you need to incorporate AVR microcontrollers into university courses or laboratories.

The content of this donation package may vary from time to time.

For the time being a set consist of:

- STK500 – Universal development kit
- AVR Butterfly – Evaluation tool with LCD
- JTAGICE - On-Chip Debugger
- Atmel AVR Studio – Development Platform
- AVR Technical Library CD
- ATmega device in PDIP

The stk500 is a universal board that is ideal for laboratories. The AVR Butterfly is a more specific tool and can be very useful in many projects and more advanced trainings. More detailed information about the tools can be found later in this document.

### 3. Be listed and get access to a list of all AVR University Program members

Sharing information, thoughts and experiences is a very valuable source for all educational institutions. Atmel maintains a database over universities, courses, laboratories and contact persons that are members of the AVR University Program. All members will get access to this information. This is done to assist the universities to cooperate even more, and to enable every member to get in direct contact with each other.

### *Short description of the design tools*

#### **STK500 – Universal development kit**

Allows for unlimited code development and interaction with the microcontroller. The student can connect LEDs, push-button switches, and other external components to the microcontroller's I/O Ports. The STK500 also serves as an In-System Programmer for all AVR microcontrollers. Has DIP sockets for all device insertions.

#### **AVR Butterfly – Evaluation tool with LCD**

Evaluation/development tool demonstrating the capabilities of the latest AVR Technology. The tool has on board ATmega169, LCD, temperature sensor, light sensor, piezo element, joystick and a 3V battery. It can be reprogrammed with any programming interface, or even just a serial cable and AVR Studio.

#### **JTAGICE - On-Chip Debugger**

An On-Chip Debugger which allows for real-time emulation and debugging of most AVR microcontrollers with 16 Kbytes or more of Flash Program Memory.

#### **Atmel AVR Studio – Development Platform**

A complete Integrated Development Environment (IDE) incorporating an Assembler and Simulator for all Atmel AVR Parts. AVR Studio is also the front-end software for the Atmel Emulators and integrates the STK500 Programming.

#### **AVR Technical Library CD**

A CD-ROM consisting of the Atmel AVR microcontroller datasheets, application notes, product user guides, and other Atmel products. A PowerPoint presentation describing the AVR architecture is also available upon request.

#### **C compilers**

The most common programming language on AVR microcontrollers is C/C++. Included on the AVR Technical Library CD is a version of the free GNU avr-gcc compiler, but also both free code size limited and evaluation versions of commercial C compilers as IAR, CodeVision and ImageCraft.

For more information about AVR tools, please refer to <http://www.atmel.com/products/AVR/>

Best Regards,

Lars Thore W. Aarrestad  
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Atmel Corporation  
[avr@atmel.com](mailto:avr@atmel.com)

## Application Form – Atmel AVR University Program

Please complete and submit this application form by email to [avr@atmel.com](mailto:avr@atmel.com).

Only permanent staff members of the University can submit the application form on behalf of the university or department. The person signing the application will be assigned as the official AVR University Program contact person.

University name	
University visiting address (will be used for shipments)	
University web address	
Department / Institute	
No of students at the department / Institute	
Contact persons name	
Contact persons employment at the University	
Contact persons email address	

Is your department using AVR microcontrollers in any courses or laboratories today?  
Please list number and name of the courses and include their web links or course description.

In what courses, laboratories or projects do you intend to use AVR products in the near future?  
Please include a web link to or attach a course description.

Approximately how many students will be attending these courses, laboratories or projects?

Are you aware of any other departments at your university that are using AVR microcontrollers?

Do you want to apply for donation laboratory set? If so then please describe how many you need and for what courses, laboratories or projects, you will be using them.

Additional comments?

This section is for the regional Atmel/Distributor FAE (Field Applications Engineer) only:

Atmel/Distributor FAE name:	
Atmel/Distributor FAE email:	
Name and address of local distributor. (If adequate)	
Date:	
Comments and recommendations regarding the applicant:	