**1. AVR micro-controller :**  
AVR micro-controller is manufactured by Atmel corporation in the year 1996. It is based on RISC Instruction set Architecture (ISA) and also called as Advanced Virtual RISC. AT90S8515 was the initial micro-controller belongs to AVR family. AVR micro-controller is most popular category of controller and it is cheap. It is used in many robotic applications.

**2.**[**ARM micro-controller**](https://www.geeksforgeeks.org/arm-processor-and-its-features/)**:**  
ARM micro-controller was introduced by Acorn computer organization and is manufactured by Apple, Nvidia, Qualcomm, Motorola, ST Microelectronics, Samsung Electronics, and TI etc. It is based on [RISC Instruction set Architecture (ISA)](https://www.geeksforgeeks.org/computer-organization-risc-and-cisc/) and also called as Advanced RISC Micro-controller. It is most popular micro controller and most industries use it for embedded systems as it provides a large set of features and is good to produce devices with excellent appearances.

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| **S.No.** | **AVR** | **ARM** |
| 01. | AVR micro controller refers to Advanced Virtual RISC (AVR). | ARM micro controller refers to Advanced RISC Micro-controller (ARM). |
| 02. | It has bus width of 8 bit or 32 bit. | It has bus width of 32 bit and also available in 64 bit. |
| 03. | It uses ART, USART, SPI, I2C communication protocol. | It uses SPI, CAN, Ethernet, I2S, DSP, SAI, UART, USART communication protocol. |
| 04. | Its speed is 1 clock per instruction cycle. | Its speed is also 1 clock per instruction cycle. |
| 05. | Its manufacturer is Atmel company. | Its manufacturer is Apple, Nvidia, Qualcomm, Samsung Electronics and TI etc. |
| 06. | It uses Flash, SRAM, EEPROM memory. | It uses Flash, SDRAM, EEPROM memory. |
| 07. | Its family includes Tiny, Atmega, Xmega, special purpose AVR. | Its family includes ARMv4, 5, 6, 7 and series. |
| 08. | It is cheap and effective. | It provides high speed operation. |
| 09. | Popular micro-controllers include Atmega8, 16, 32, Arduino Community. | Popular micro-controllers include LPC2148, ARM Cortex-M0 to ARM Cortex-M7, etc. |