ARM vs AVR

Parameter	AVR Microcontroller	ARM Microcontroller
Basic	AVR stands for "Alf and Vegard's RISC processor" or "Advanced Virtual RISC".	ARM stands for Advanced RISC Machine.
Bus width	AVR microcontrollers have a bus width of 8 bits. It also available in 32 bits bus width.	ARM microcontrollers have a bus width of 32 bits. It also available in 64 bits.
Developer	AVR microcontroller was developed by Atmel Corporation.	ARM microcontroller was developed by Acorn Computers.
Release date	AVR microcontroller was released in 1997.	ARM microcontroller was released in 1983.
Communication protocols	AVR microcontrollers use UART, USART, SPI, and I2C communication protocols.	ARM Microcontrollers use UART, USART, I2C, I2S, LIN, CAN, USB, Ethernet, SAI, and DSP communication protocols.
Memory	AVR microcontrollers use SRAM, Flash Memory, and EEPROM.	ARM Microcontrollers use SDRAM, Flash Memory, and EEPROM.
Unique features	AVR microcontrollers are known for their low cost and high performance.	ARM microcontrollers are known for their high-speed operation.
Peripherals	AVR microcontrollers have a smaller number of built-in peripherals.	ARM microcontrollers have a greater number of built-in peripherals.
Real time processing	AVR microcontrollers are not much effective in real time processing applications.	ARM microcontrollers are suitable for real time processing applications.

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Community	AVR microcontrollers have a very good community to provide support to developers.	ARM microcontrollers have a vast community that is more focused and specialized.
Power consumption	AVR microcontrollers consume less power.	ARM microcontrollers consume slightly more power than AVR.
Cost	AVR microcontrollers are relatively less expensive.	ARM microcontrollers are more expensive than AVR.
Popular microcontrollers	Some popular microcontrollers of AVR family are ATmega 8/16/32, Arduino community, etc.	Some popular microcontrollers of ARM family are ARM Cortex-M0 to ARM Cortex M7, LPC2148, etc.
Applications	AVR microcontrollers are used in applications like robotics, home and office appliances, industrial automation systems, automobiles, etc.	ARM microcontrollers are used in a wide range of applications, from simple embedded systems to high-end computing systems.