

Those of us who are involved in electronics generally want to measure analogue values such as voltage, current, resistance and other electronics parameters. When microcontrollers firstly appeared, they did not have A/D (analogue to digital) converters built-in, so engineers had to figure out that problem. Today, we are lucky: most AVR microcontrollers contain a 10-bit A/D converter, only a few do not. However they usually have at least a built-in comparator which can also be handy for making an A/D conversion.



In this chapter I will show you some program examples that are widely used and suitable for most of our measurements.

AVR internal registers

If you look at an AVRs datasheet, you'll see many internal functional blocks. In Figure 1, you can see the internal circuitry of the A/D converter.



