The aim of this work is design and implementation of software for an embedded system. Its is based on 8-bit RISC AVR processor connected to Ethernet controller that allows network communication. The software will include processor control as well as control of its peripherals and TCP/IP library for Internet communication. The main goal is to minize code size of developed software because both target AVR processors have very limited size of code memory. The first one has capacity of 8 kilobytes, the second one capacity of 16 kilobytes.