The aim of this work is to create an application used to internet telephony over the IP networks with support of the SIP application protocol. The application is focused on low system requirements, therefore it could be used in the embedded system. This document informs about the most significant principles of used application protocols, such as SIP, SDP and RTP. An important part of the work is a conclusion of the final application. It consists of the discussion about the compatibility with others implementations, system requirements and the possibilities of variable controls extension. The end of this work is dedicated to possible improvements, discussion about the future development and informations about usability of the implementation in a real embedded system.