The aim of this project was to create a system based on Raspberry Pi that would be able to control home heating. The system allows remote access through a web interface and have options to limit access to the application. The heating control is able to work in two different regimes, manual, that allow user to change in real-time, and predefined, that keeps the current temperature around a value that was previously set by the user. The system also stores data for possible future implementation of an automated learning regime. A part of the project focuses on solving problems with network address translation that may make it impossible to connect directly to the application running on Raspberry Pi at our home local network when connecting from external network.