



Abstract

Project description Webserver for LG500

The Webserver this documentation is referring to is thought as an extension to the ventilation system LG 500 that is being developed at the same time

The LG 500 is a system for controlled ventilation. Therefore it draws air out of the room (extracted air), the temperature is measured and then the air is routed through a heat exchanger that heats the ingoing air. After the heat exchanger the temperature is measured again (outgoing air). In a seperate circiut air is drawn from the outside. Again the temperature is measured (outside air) and routed through the heat exchanger. Thereafter the air should have the right temperature. This temperature is measured again (Fresh air) and then the air is blown into the room.

For the 2 separate airflows there are 2 energy saving and silent but powerfull DC-ventilators and 2 filters. Furthermore there is a bypass hatch that can bypass the heat exchanger and the incoming air goes directly into the room. The outside air also passes a heater element that heats the air to the right temperature so that the fresh air gets the right temperature after passing the heat exchanger. The device has a time programm and regulates the selected air flow. The temperature and the amount of air can be selected through a control panel. This however makes it necessary to be near the device. That is why the idea came up to steer the LG 500 via Internet from everywhere in the world.

This extension to the LG 500 is basically a Webserver that allows the user to see the relevant data (Temperatures, Fan speeds and remaining lifetime of the filters) of the system, switch it on and off, and select the temperature and the amount of airflow.

The web control system is intended to be a comfortable sollution if the user is not near the ventilation system and wants to see wether the ventilation still works as wanted, what temperatures there are at the moment and allows to change the amount of airflow if wanted. Furthermore it is comfortable to see system informations and to be able to react to them even if one is not near the LG 500.

One more important aspect is that the homepage needs a password to make sure that only authorized persons can access the system and work with it.