

Technical assistance request:

As of today a working prototype is working the one challenge would be a lower and higher elevation temperature sensor to stop the run cycle of cooling or heating once the higher elevation runs out of more hot air for heating and once the lower elevation runs out of cooler air. This is more like an improvement since at present the run time is estimated by amount of air exchanged between the higher and lower elevation. The same is the case with outside air interaction.

The more challenge that I am presently working on is I am also putting heating element in present modified air register (in the present prototype the air register is modified with DC power fan/fans assembly provided by solar panel and wind turbine) for heating and for cooling the modified air register is installed after air handler box is contained with absorbent material soaked in water (as in the past called swamp cooling).

As of now I am using smart thermostat and I am using the simulated heat and cool call for activating the fan/fans air exchange and only improvement that can be done is in regard to more efficient run time.

I have been to flex lab of Lawrence Berkeley national lab. I am sure more improvement may be found by them and also the data collection and system analysis can be greatly done by them.