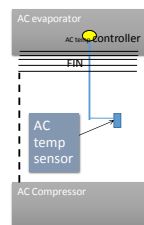
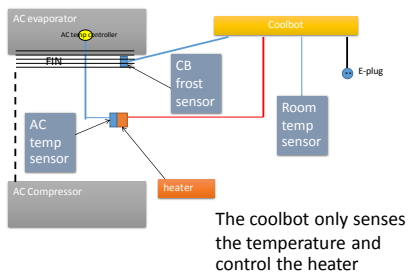


### • Experiences with the Coolbot

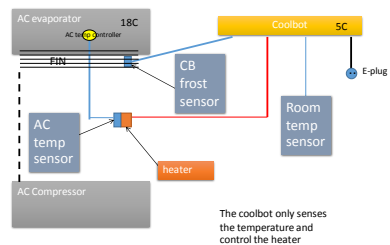
- The idea is to use the home air-conditioner unit instead of the regular cold room unit
- Five times cheaper for the cooling unit cost
- Not the room cost
- Not the energy cost



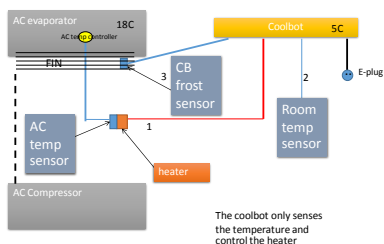
Coolbot diagram



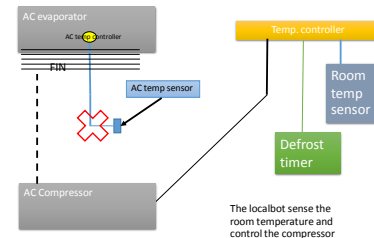
Coolbot diagram



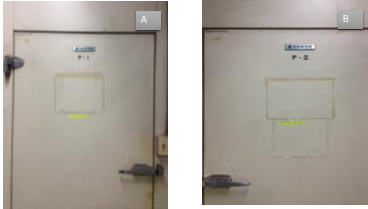
Coolbot diagram



Localbot diagram



Comparing:  
Coolbot room (A) and localbot room (B)



Cool room inside view



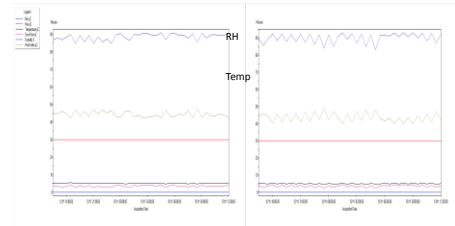
Cool room with Coolbot (A) and cool room with local modification (B)

Cool room controller



Controller costs US \$300 in both cases

Coolbot vs localbot



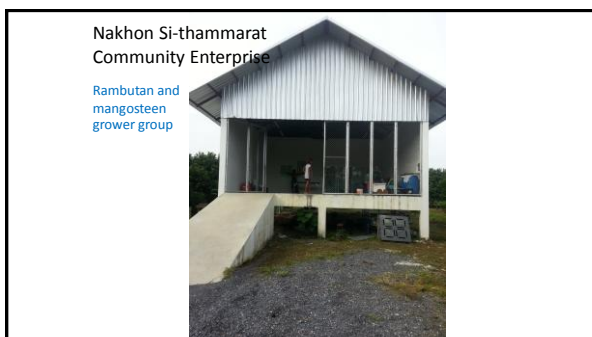
Coolbot room (A) and localbot room (B)

1. Coolbot is easier to use, not more expensive
2. Installation of the AC unit is very important

The evaporator of AC is smaller than that of the cold room



The temperature of AC evaporator is colder than  
temperature of regular cold room evaporator  
More water condensed and moved out (14%)  
3. Need to add moisture or using plastic bag





One inch polyurethane insulation



Poor door insulation



Too small AC

5. Electricity was not stable

6. Cable was too small

Work on insulation is needed to get affordable cold room

No floor insulation

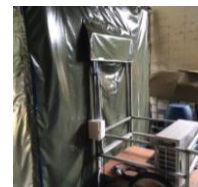


Knock down cool room

Chanthaburi Horticultural Research Center



Being tested now





Parts after knocked down

**Acknowledgement:**

- HortCRSP
- Kasetsart University
- Nakhon Si-Thammarat Community Enterprise
- Chanthaburi Horticultural Research Center

*We are  
Fresh!!!*

