INSECTO

Manual

isep Instituto Superior de
Engenharia do Porto

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1. Insectarium step guide
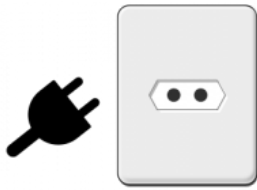
Step 1

Plug the insectarium into the wall.

Step 2

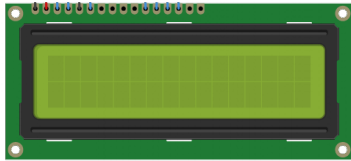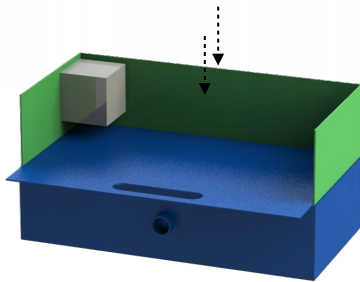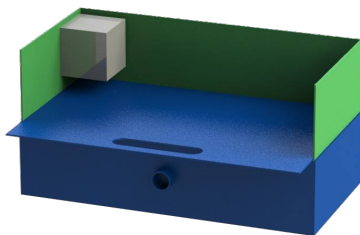Select chosen temperature and humidity range for chosen insect with the LCD with keypad.
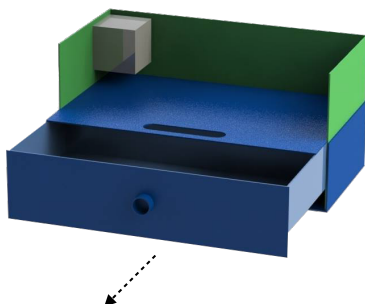

Step 3

Fill the insects space with sand not further than the estimated line

Step 4

Place the chosen insects into the enclosure.

Step 5

After a certain period of time the enclosure will need to be emptied of the
insects defecation by pulling out the drawer and emptying.

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2. automatic system

Once the temperature ranges have been chosen it allows the insectarium to automatically control the insectarium and its insects in the chosen environment. The heater and cooling fan placed in the enclosure will activate if it is to cold or to warm (out of range) to allow it to stay at a fairly constant and steady temperature.

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3. LCD with keypad

The LCD will display temperature and humidity in 4 digits each (2 decimal places).

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4. LCD step guide
Selecting temperature range with LCD Keypad shield.

Step 1 - Select temperature range hold the select button until main menu screen appear.

Step 2 - Then either :

- Press up and select to change maximum temperature.

- Press down and select to change minimum temperature.

Then use the 2 middle buttons to increase/decrease the numbers to the chosen temperature range you want for both minimum and maximum temperature.

The LCD and arduino will now work on this range and if the enclosure is out of this temperature range then the cooling fan /heater will activate.

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5. Cooling fan

The 12v cooling fan will help reduce the temperature if the insectarium is out of the temperature range and mix air in the insectarium.

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6. The heater

The heater will activate when the temperature is out of range (too cold) in the enclosure.

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7. Type of insects

The insectarium is open to farm most insects as since it has a flexible environment ,common ones used in the enclosure are Mealworms and Beetles. although most types of insects have different breeding stages and different temperature needed.

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8. Warning 1!

Ensure that the insectarium is placed in a safe environment ,and the electronics is protected from water.

8. Warning 2!

Maximum temperature can't exceed 40 degrees and can't be lower than 15 degrees.

Minimum temperature can't be lower than 10 degrees and can't exceed 30 degrees.

INSECT

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