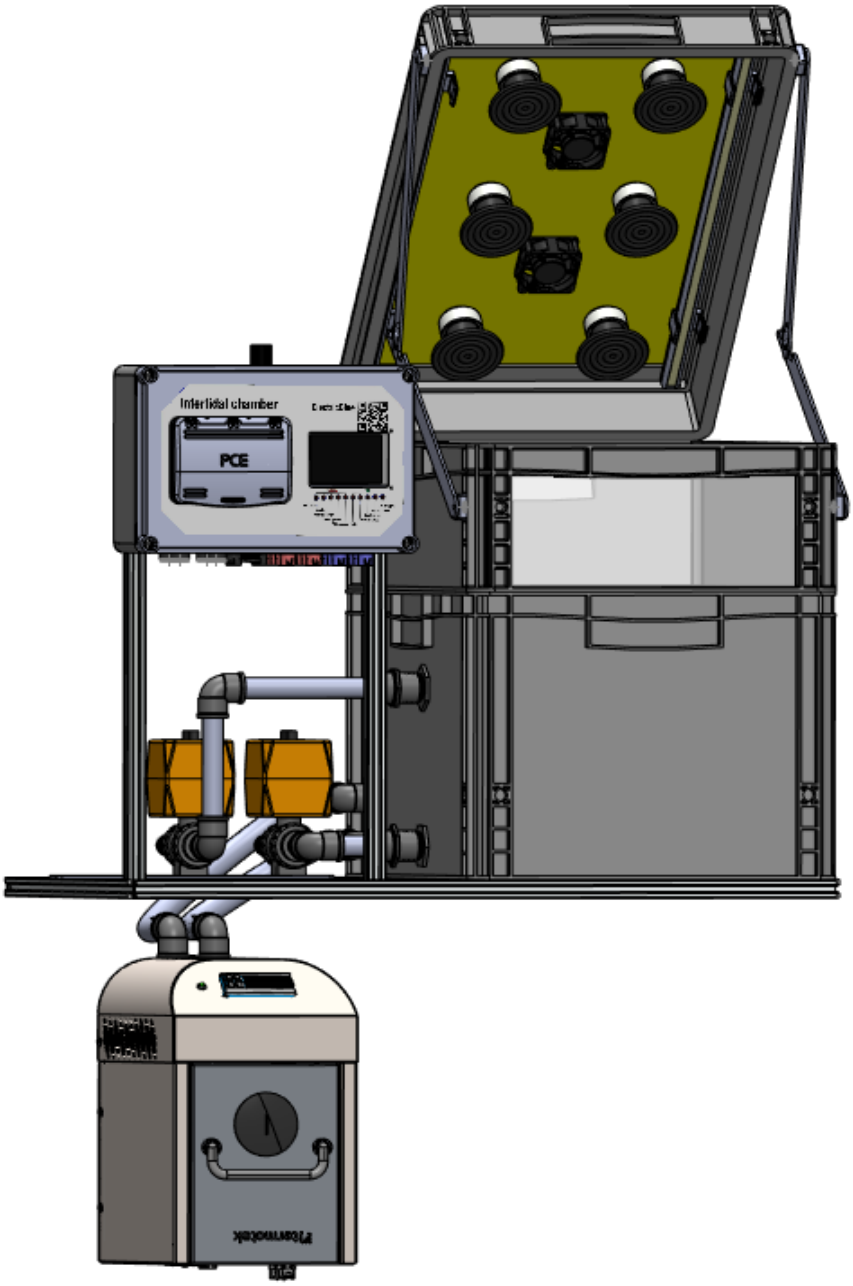
Intertidal Chamber assembly instrucions



The Intertidal chamber is shipped in two packages, which content is the following (**Fig. 1 and Fig. 2**):

Package 1:

- Control unit with two aluminium bars attached;
- Aluminium main frame with one or two water valves attached, depending on your water inlet option (water valve or pump);
- Water storage tank (60x40x32cm) containing a 500W titan heater, two water pumps and 3 temperature sensors;
- Two hoses with isolation;

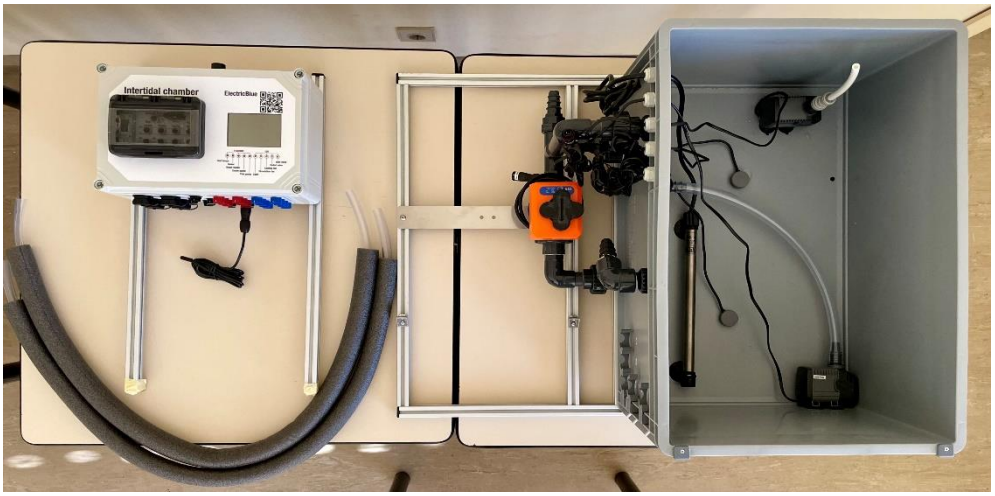


Fig. 1: Content of package 1.

Package 2:

- Experiment tank with lid attached by a steel hinge (60x40x17 and 60x40x7.5cm);
- Six Infra-red (IR) heat lamps;
- Eight water level sensors;
- Two temperature sensors;
- Mains power cord;
- Four steel screw clamps;
- Water pump (in case your water inlet option was water pump instead of water valve);

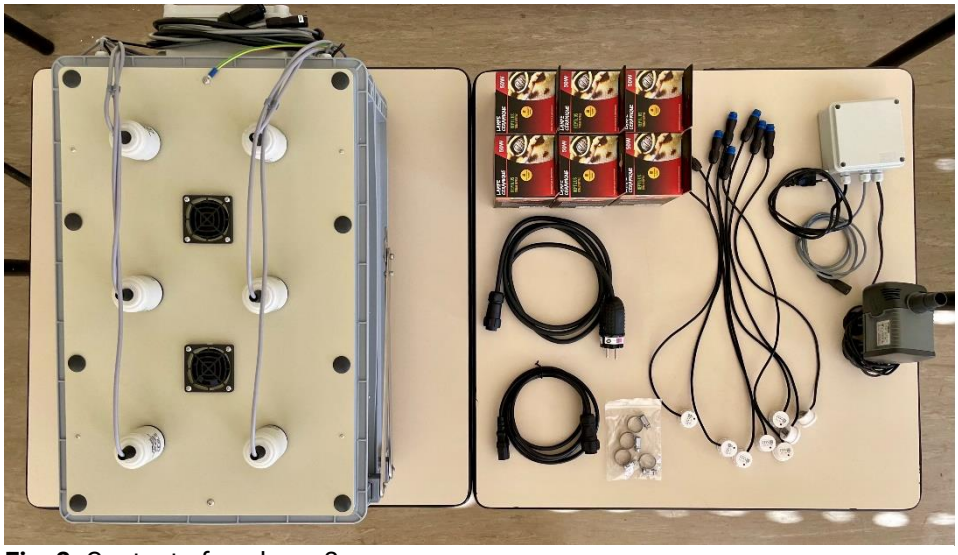


Fig. 2: Content of package 2.

To assembly the Intertidal chamber please follow these steps:

1- Attach the tube from the tide pump in the Water storage tank to the Experiment tank (**Fig. 3**).

Fig. 3: Assembly step 1.

2- Fix the Control unit to the main aluminium frame. You first need to loosen the M4 V-nut on the two aluminium bars already attached to the Control Unit and their counterpart V-nuts on the main frame with a 2.5mm Hex tool (**Fig. 4**).

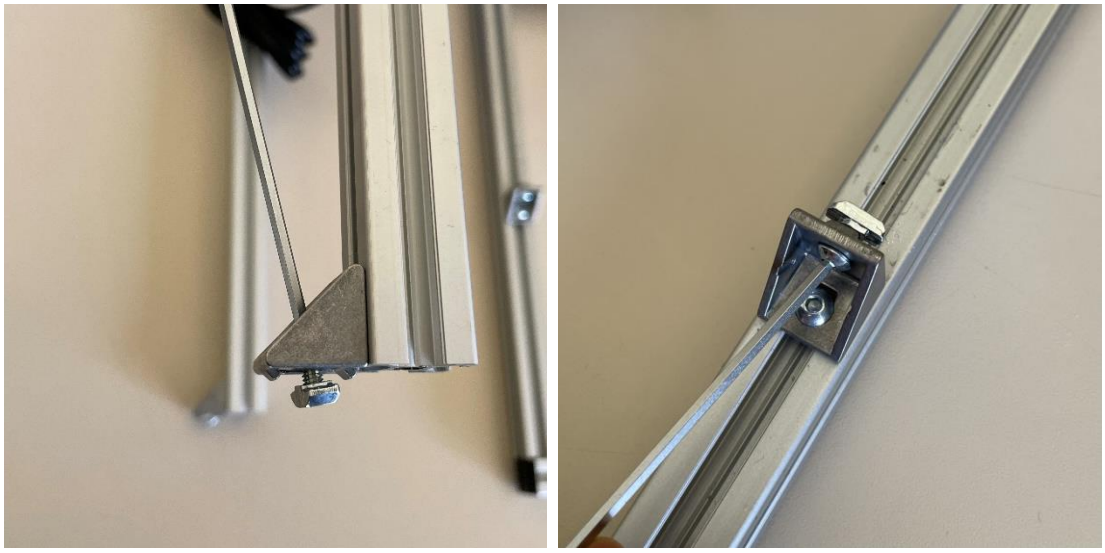


Fig. 4: Assembly step 2.

3- Place the aluminium bars on top of the main frame and tighten the M4 V-nuts to fix the structure (**Fig. 5**).

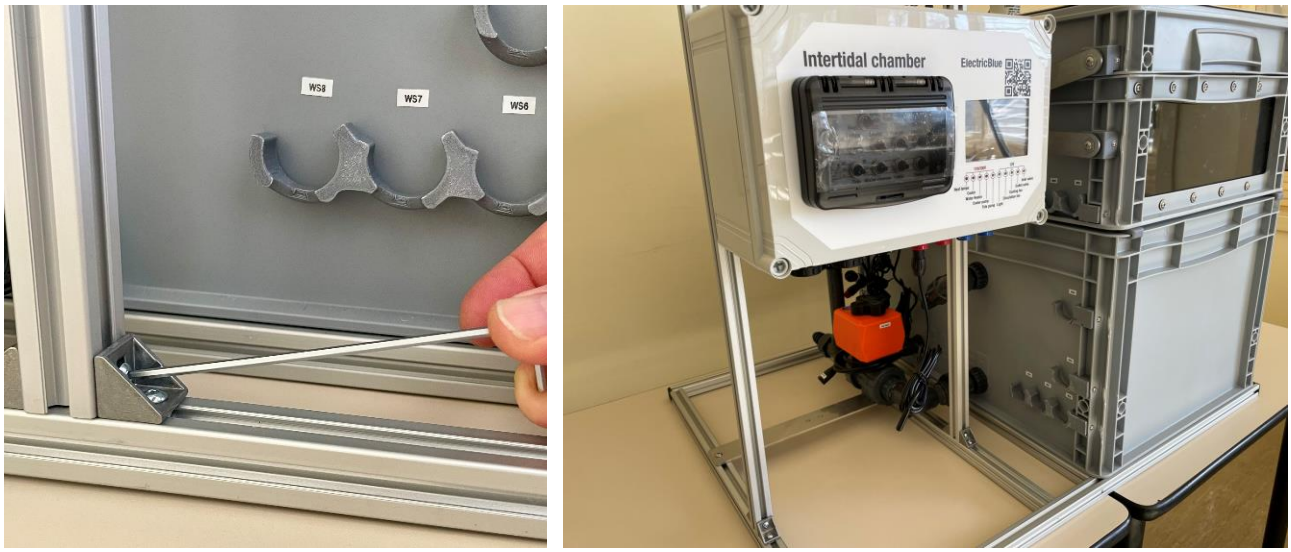


Fig. 5: Assembly step 3.

4- Release the tightening wires around the three temperature sensors in the Experiment tank and bring the excess cable out of the tank (**Fig. 6**).

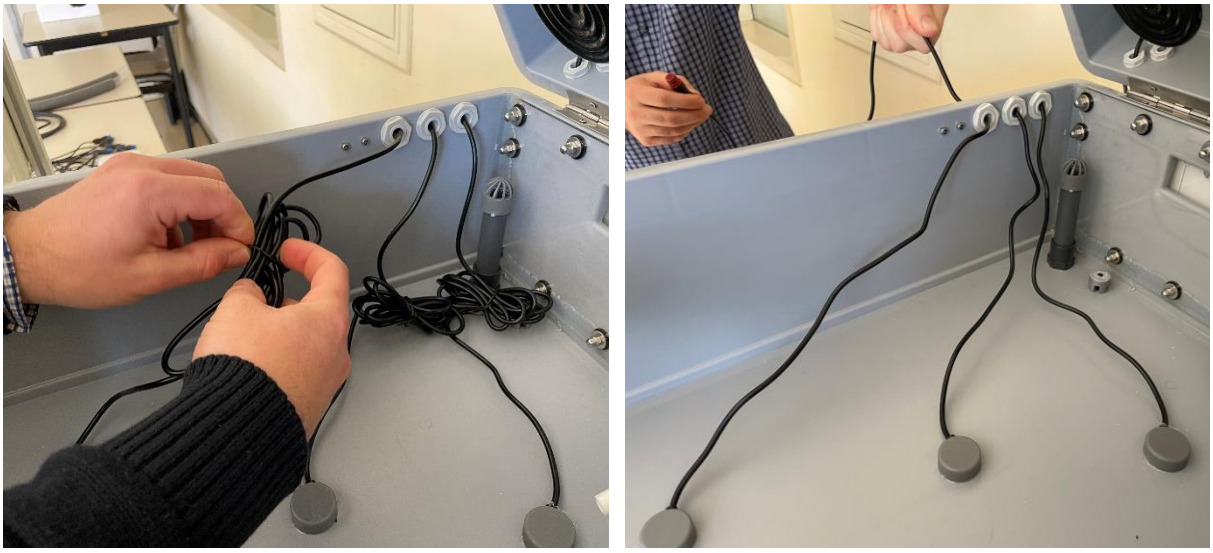


Fig. 6: Assembly step 4.

5- Connect the three sensors to T1, T2 and T3 connectors on the control Unit1 (**Fig. 7**). Notice the T6 might already be connected, as this sensor is supposed to be outside the tanks, measuring room temperature.

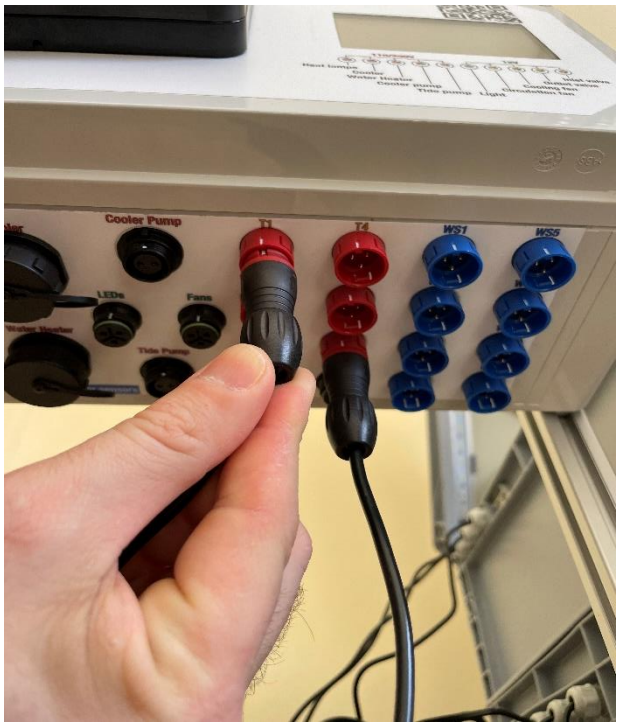


Fig. 7: Assembly step 5.

6- Repeat the same process for the two temperature sensors on the Water storage tank (**Fig. 8**). Connect these to T5 and T6 on the Control unit.

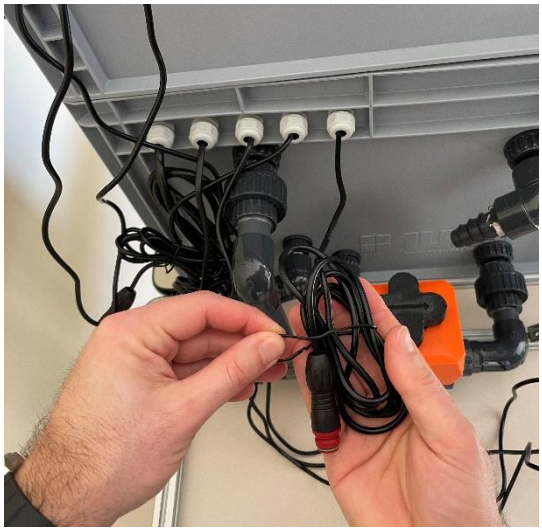


Fig. 8: Assembly step 6.

7- Attach the eight water level sensor on their supports on the outer wall of both tanks. To put them in please, slide these downwards, into their fitting slot (**Fig. 9**).

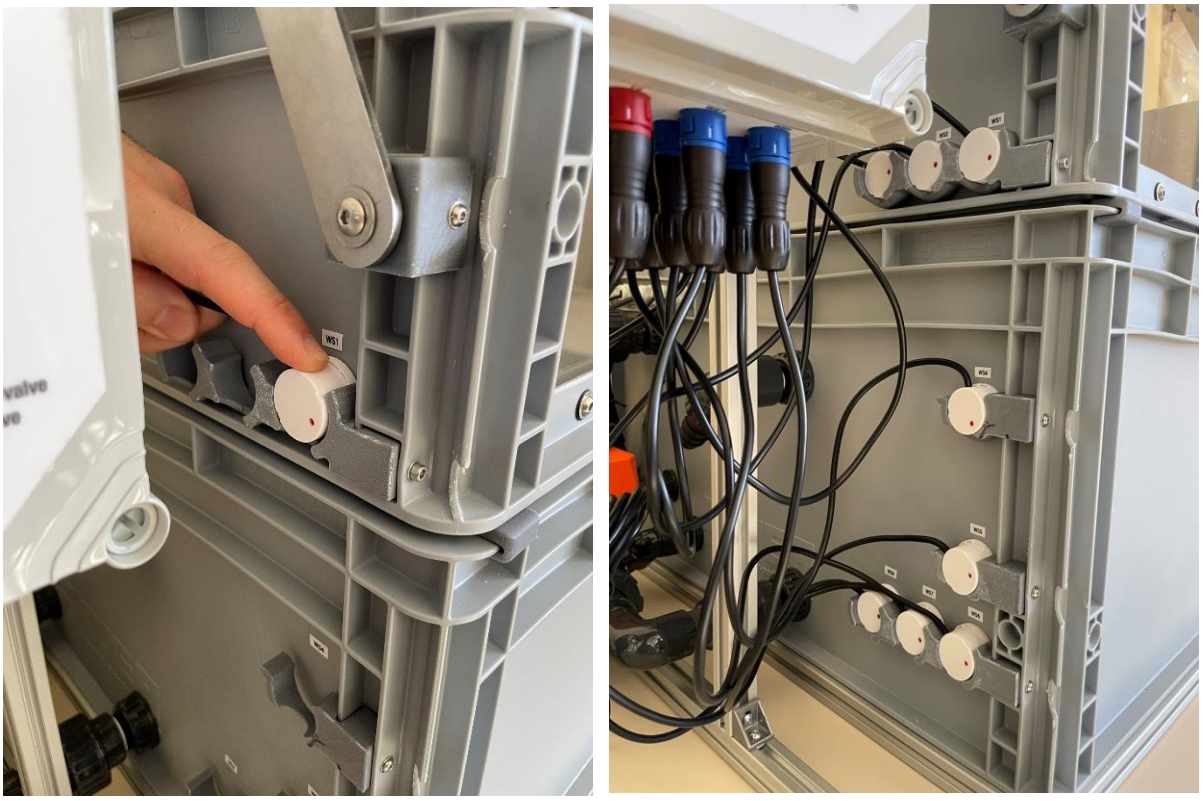


Fig. 9: Assembly step 7.

8- Connect the water level sensors to the Control Unit, matching the tanks label with the connector on the Control unit (WS1 to WS8) (**Fig. 10**).

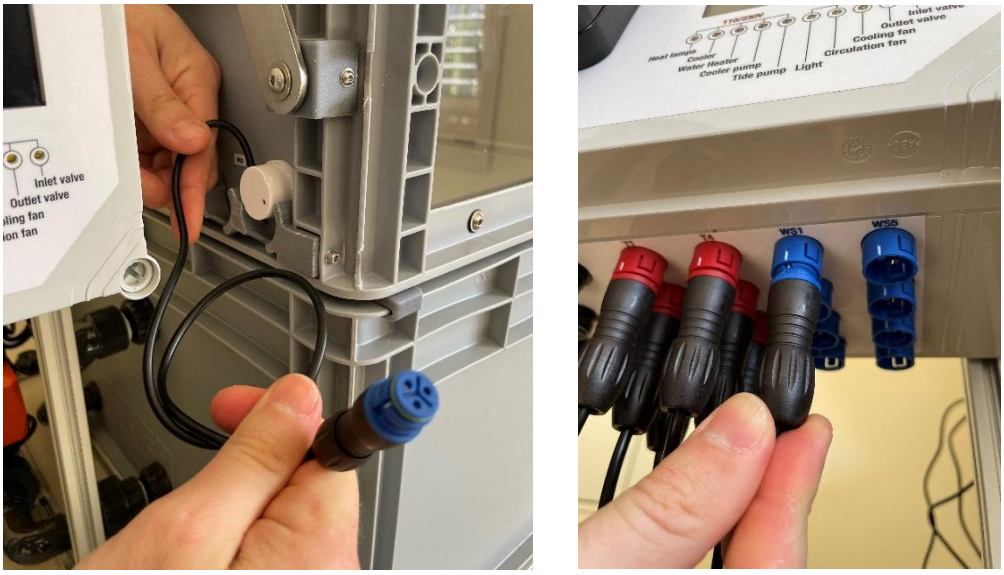


Fig. 10: Assembly step 8.

9- Release the tightening wires around the Tide pump and connect it to the matching connector on the Control unit (**Fig. 12**).

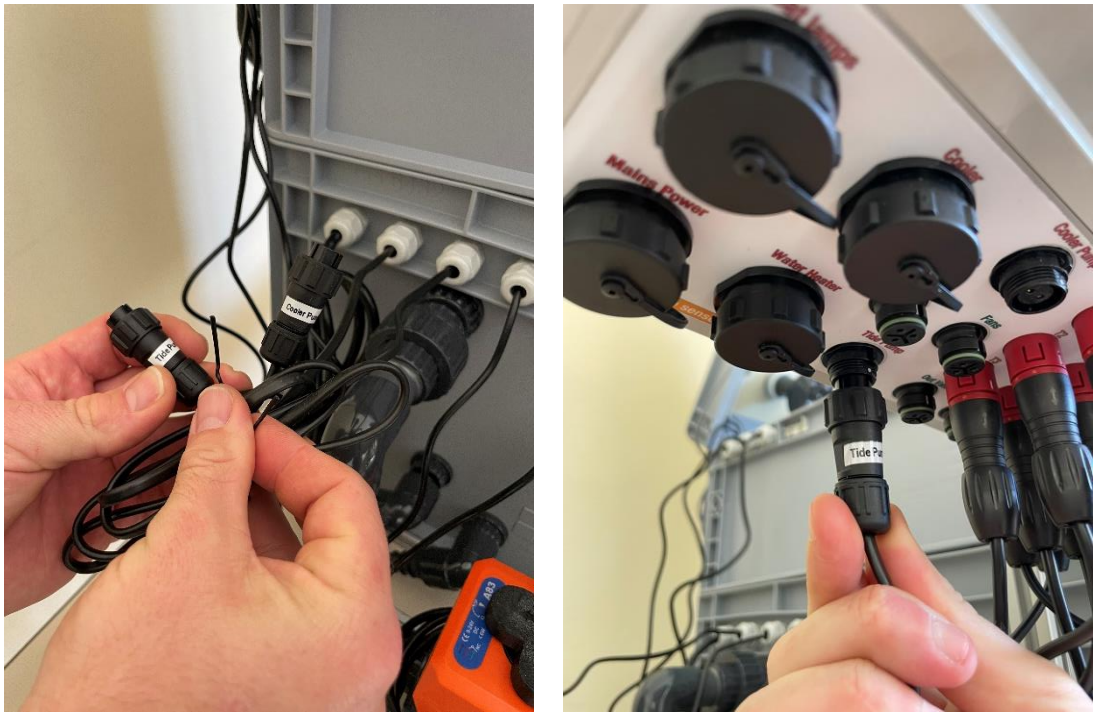


Fig. 12: Assembly step 9.

10- Repeat the same process for the Cooler pump (**Fig. 13**).

Fig. 13: Assembly step 10.

11- Repeat the same process for the Water heater (**Fig. 14**).

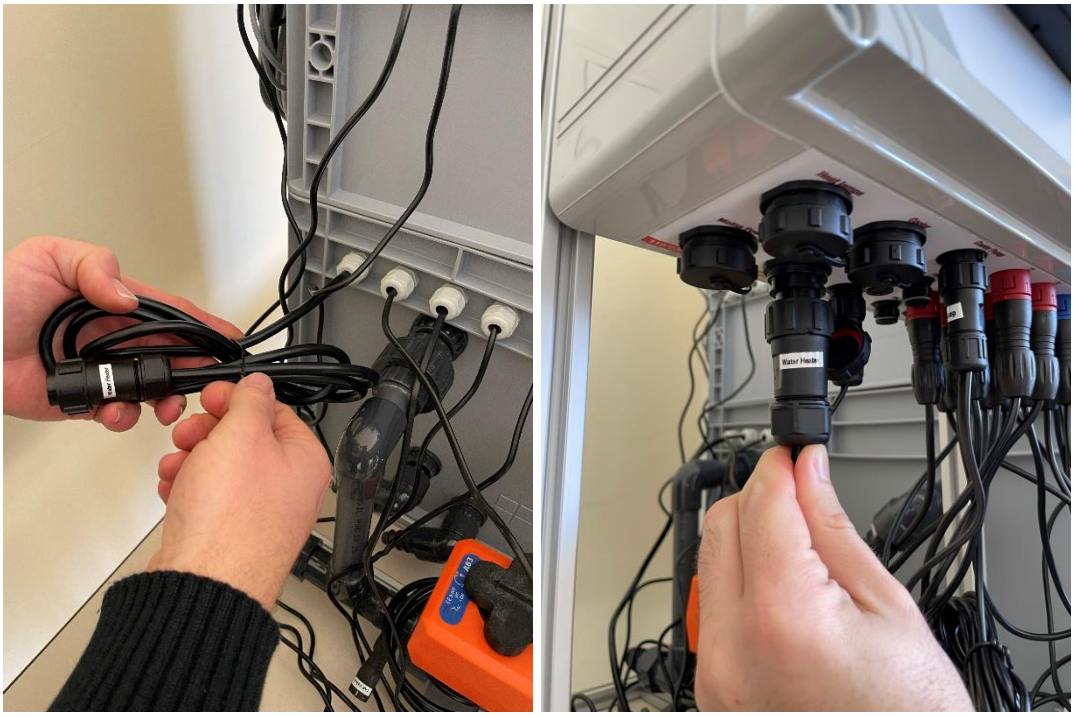


Fig. 14: Assembly step 11.

12- Repeat the same process for the Water valve, this can be for one or two water valves depending on your water inlet option (**Fig. 15**).

Fig. 15: Assembly step 12.

13- Release the cables around the grey electric box behind the Experiment tank and bring the cables around the Intertidal chamber, from the back of the tanks, up to the Control unit (**Fig. 16**).

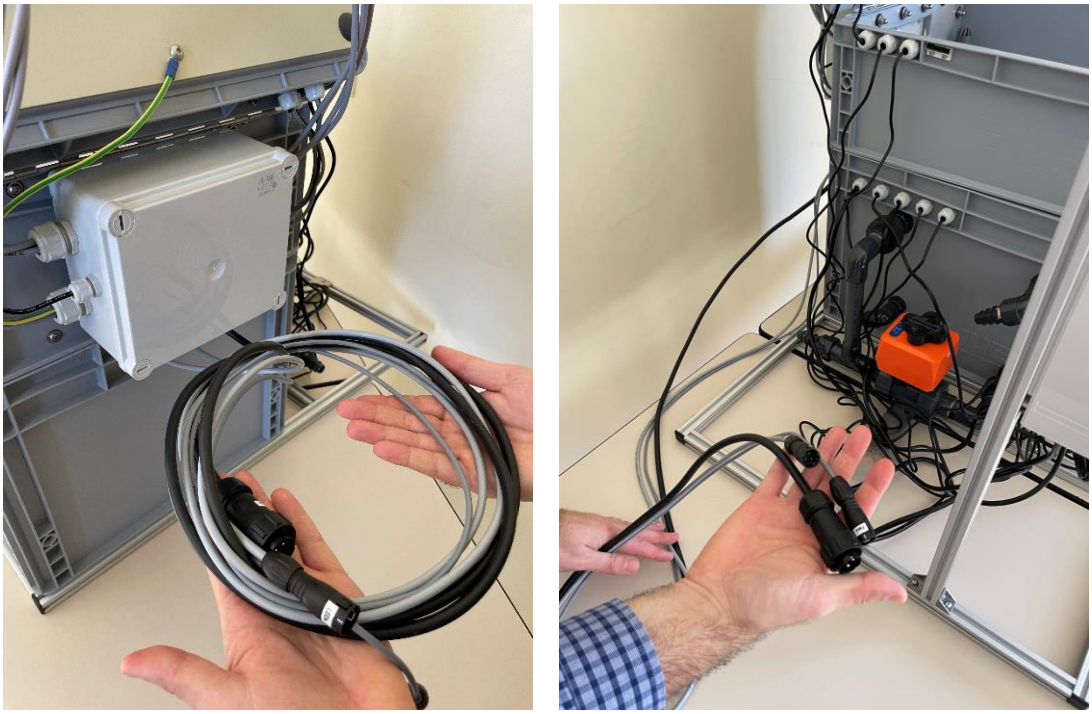


Fig. 16: Assembly step 13.

14- Connect the cables labelled Heat Lamps, LED and Fans to the corresponding connectors on the Control unit (**Fig. 17**).

Fig. 17: Assembly step 14.

15- In case you opt for water pump for water inlet, connect the water pump connector ‘In Valve’ to the Control unit and an hose to the water pump (this hose is not included) (**Fig. 18**).

Fig. 18: Assembly step 15.

16- Attach the other side of this hose to the water inlet PVC adapter on the Water storage tank. In case you opt by a water valve for water inlet, attach the pressurized water hose to the In Valve PVC adaptor (**Fig. 19**).

Fig. 19: Assembly step 16.

17- To operate the water valves manually, first unplug these from the Control unit. Then turn their black knob on top counterclockwise, while pressing the button beneath (**Fig. 20**).

Fig. 20: Assembly step 17.

18- Place the connectors on the water cooler and connect the isolated hoses. Tighten the steel clamps (**Fig. 21**).

Fig. 21: Assembly step 18.

19- Connect the isolated hoses on the Water storage tank PVC connectors and tighten the steel clamps (**Fig. 22**).

Fig. 22: Assembly step 19.

20- Connect the water cooler power cable to the Cooler and the Control unit in the matching connector (**Fig. 23**).

Fig. 23: Assembly step 20.

21- Turn the Cooler switch ON and adjust its Set temperature to the minimum (3ºC) (**Fig. 24**).

Fig. 24: Assembly step 21.

22- Connect the Intertidal chamber power cable to the Control unit and to mains power (**Fig. 25**).

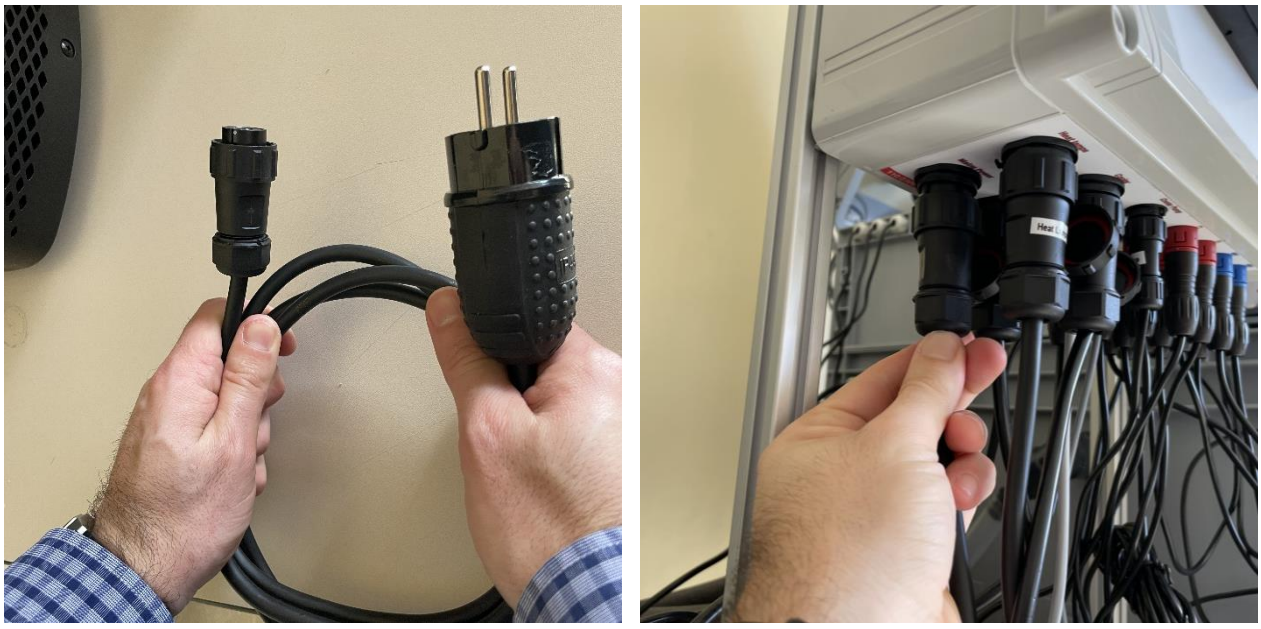


Fig. 25: Assembly step 22.

23- Turn the circuit breaker switch upwards to power the Intertidal chamber and you're ready to go! (**Fig. 26**). Please refer to the Intertidal chamber Manual for further information.

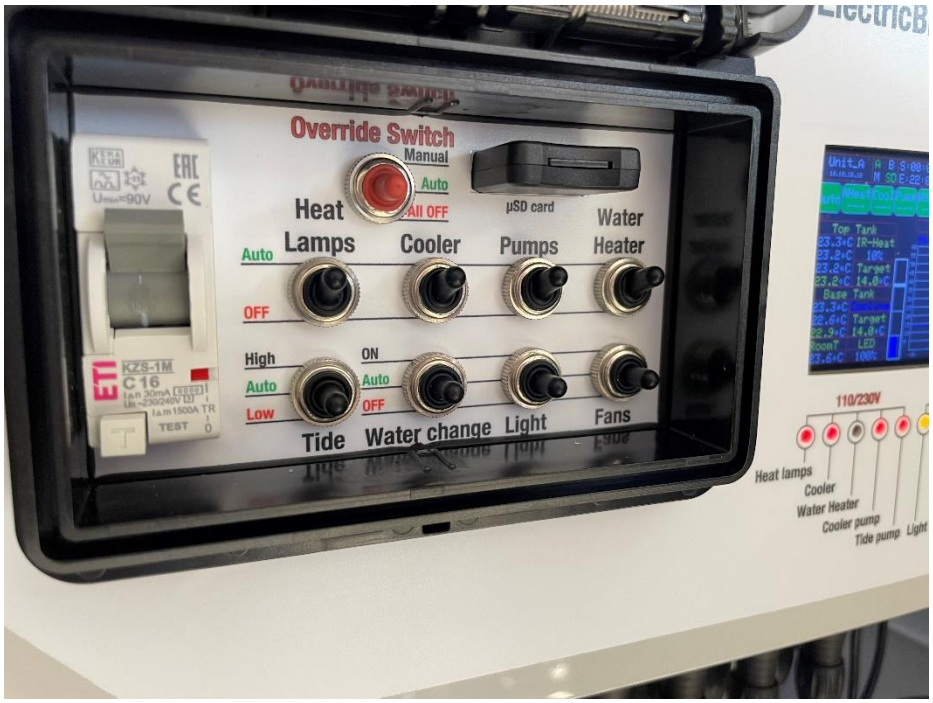


Fig. 26: Assembly step 23.