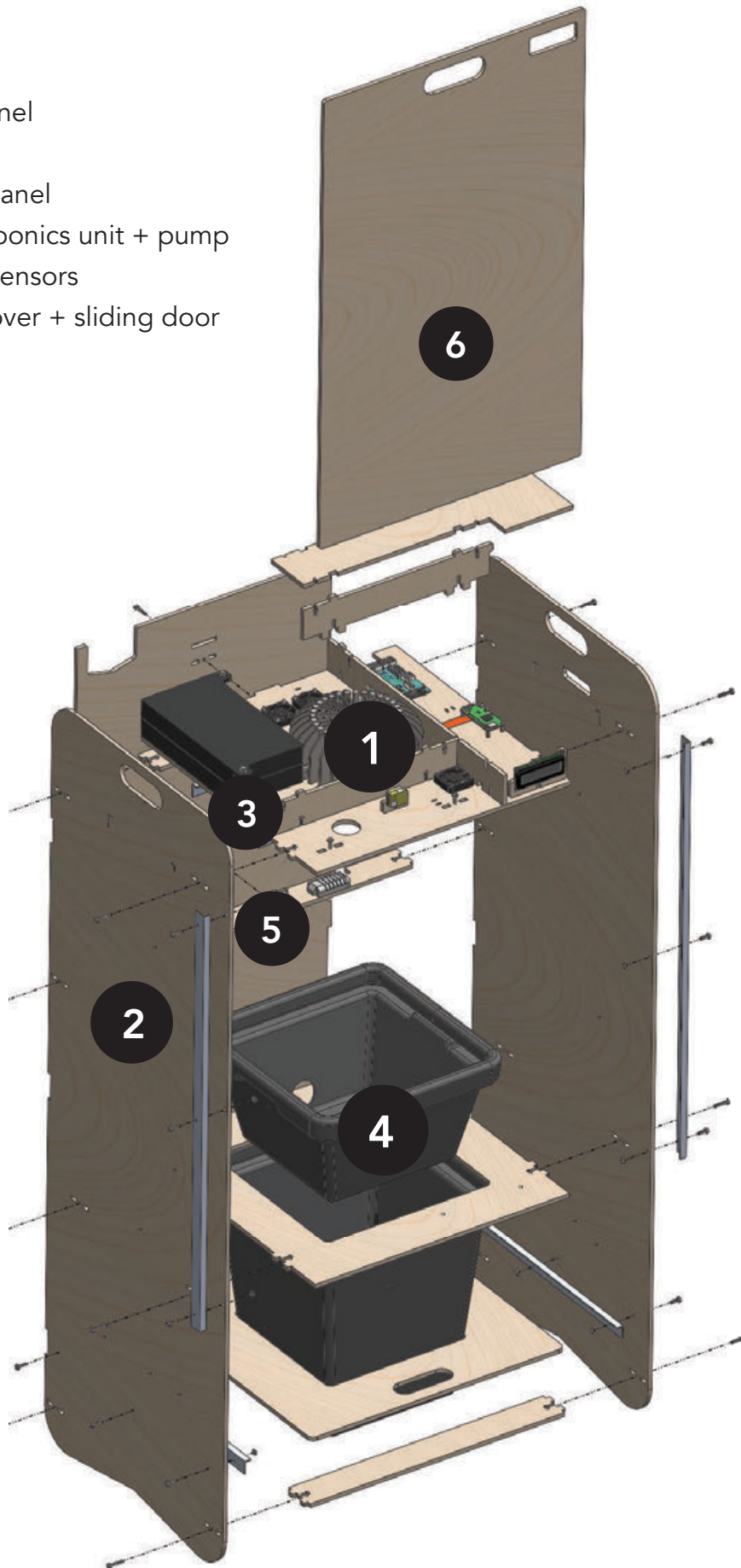# ASTROPLANT

BUILDING INSTRUCTIONS
KIT V5.2

BUILDING THE KIT

Steps

1. Build top panel
2. Build casing
3. Mount top panel
4. Insert hydroponics unit + pump
5. Fix internal sensors
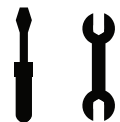6. Install top cover + sliding door

PART LIST

Housing without electronics top	Number	Where
Screw m4x20mm	23	Casing
Screw m4x12mm	12	L profile
Nut m4	35	Casing
Screw m2x10mm	2	light sensor
Nut m2	2	light sensor
L-profile 20x10x1,5 (650mm)	2 x 2000mm	Door, hydroponic panel en top plate structure
L-profile 20x10x1,5 (400mm)		
L-profile 20x10x1,5 (422mm)		
Metallic foil		
Double sided tape		

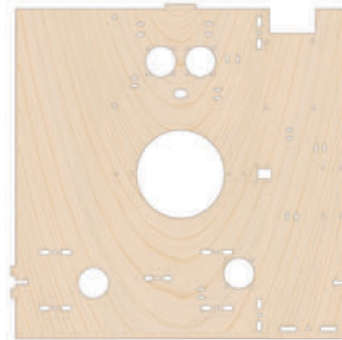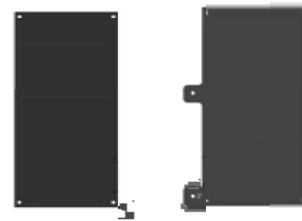| Electronics top	Number	Where
Screw m4x20mm	9	Cover holders & Co2 holder
Screw m4x12mm	1	Display holder
Nut m4	10	Casing + L-profile
Hex standoff (raspberry pi standoffs)	8	rpi & extension shield
Screw m2x10mm (voor Hex standoff)	8	
Screw m2x10mm	10	heatsink, display & camera
Nut m2	6	display & camera
Screw m3x20mm	12	Fans
Nut m3	12	Fans
Tie wrap	9	Cabling
Double sided tape		Co2 sensor
Glue		Housing power convertor
For Hex standoff M 2.5x8	8	Spacers
Screw M3x10mm	2	Led/heatsing

1 BUILD THE TOP PANEL

Material

Screw m4x12 1x
Screw m4x20 9x
Nut m4 10x
Hex standoff 8x
Screw m2x10 18x
Nut m2 6x
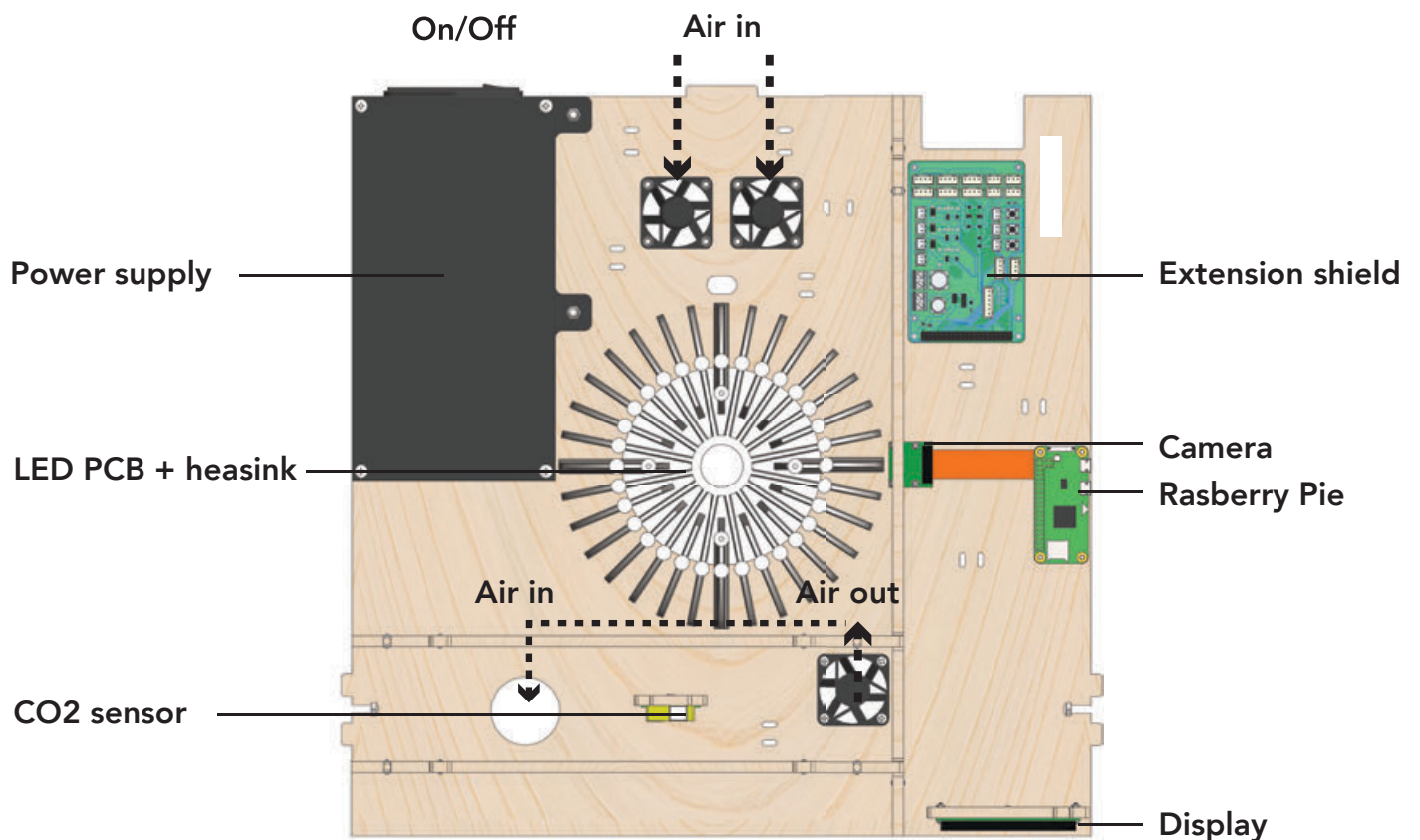Screw m3x20 12x
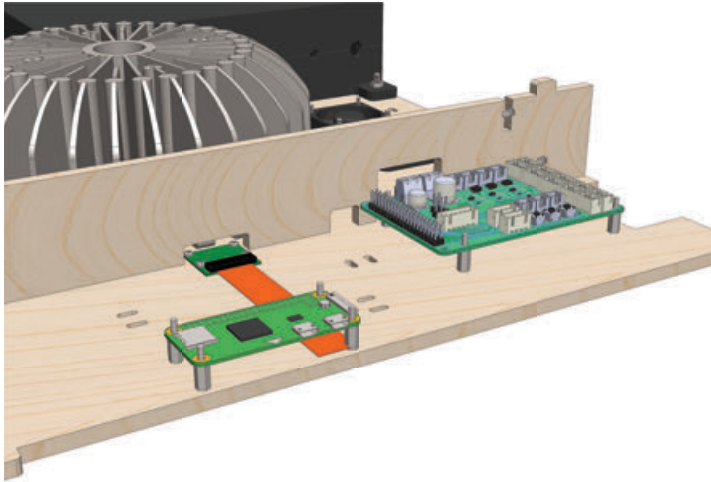Nut m3 12x
Tie wrap 9x

Panel

Housing

Lid

Walls

Mounts

On/Off

Air in

Power supply

Extension shield

LED PCB + heasink

Camera

Rasberry Pie

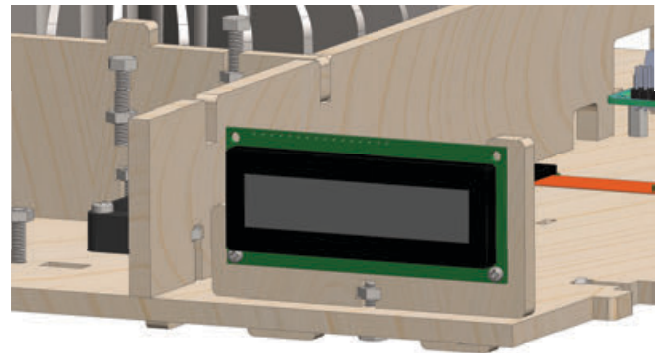Air in

Air out

CO2 sensor

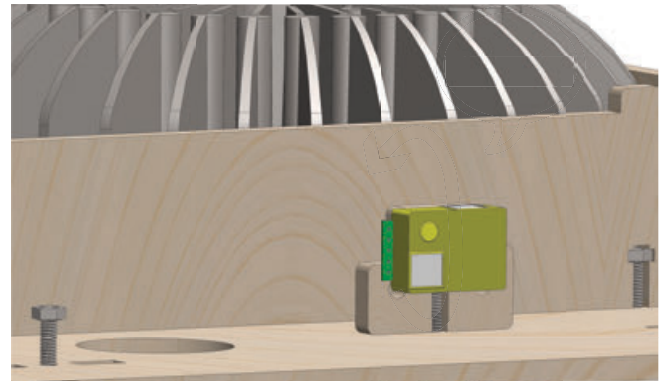Display

ⓘ See cable scheme on github

1 BUILD THE TOP PANEL

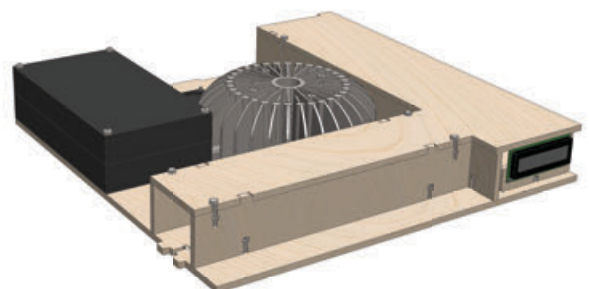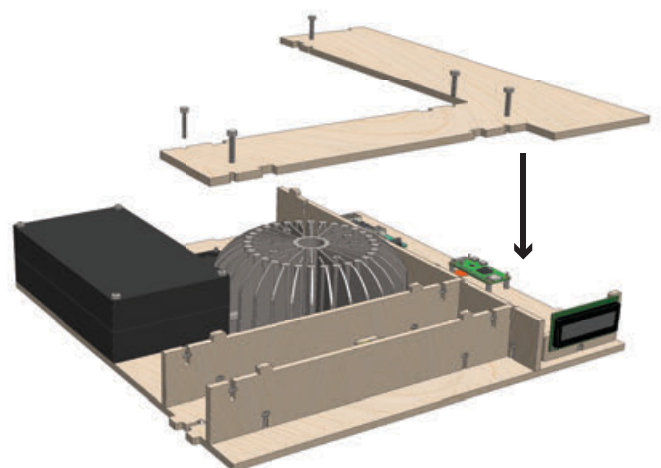## 1.1 Mount boards, camera and power supply

1.2 Mount screen and sensors

1.3 Fix cables with tie wraps
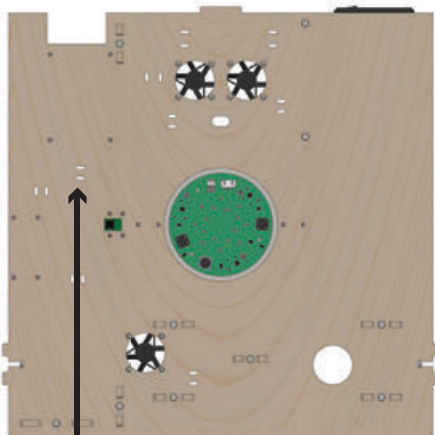
1.4 Mount walls and close with lid
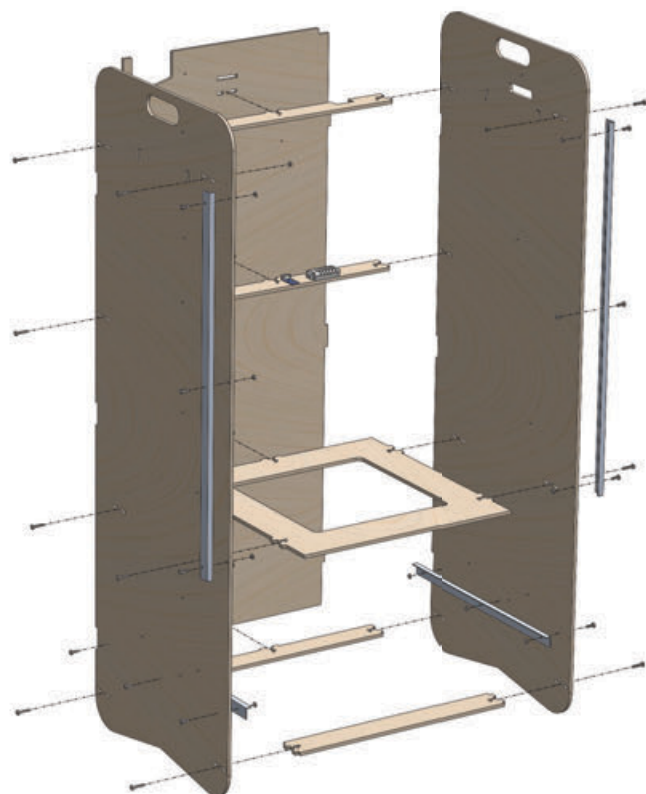
Material

Screw m4x12 6x
Screw m4x20 24x
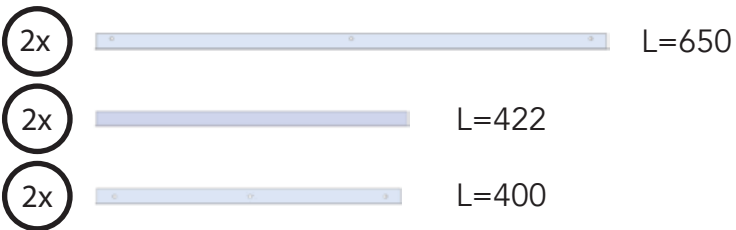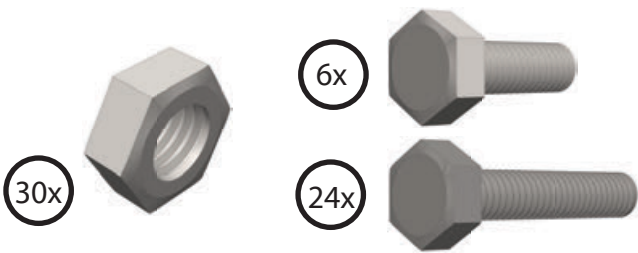Nut m4 30x
Screw m2x10 2x
Nut m2 2x

30x

6x

24x

2x ——————————————— L=650

2x —————————— L=422

2x ————————— L=400

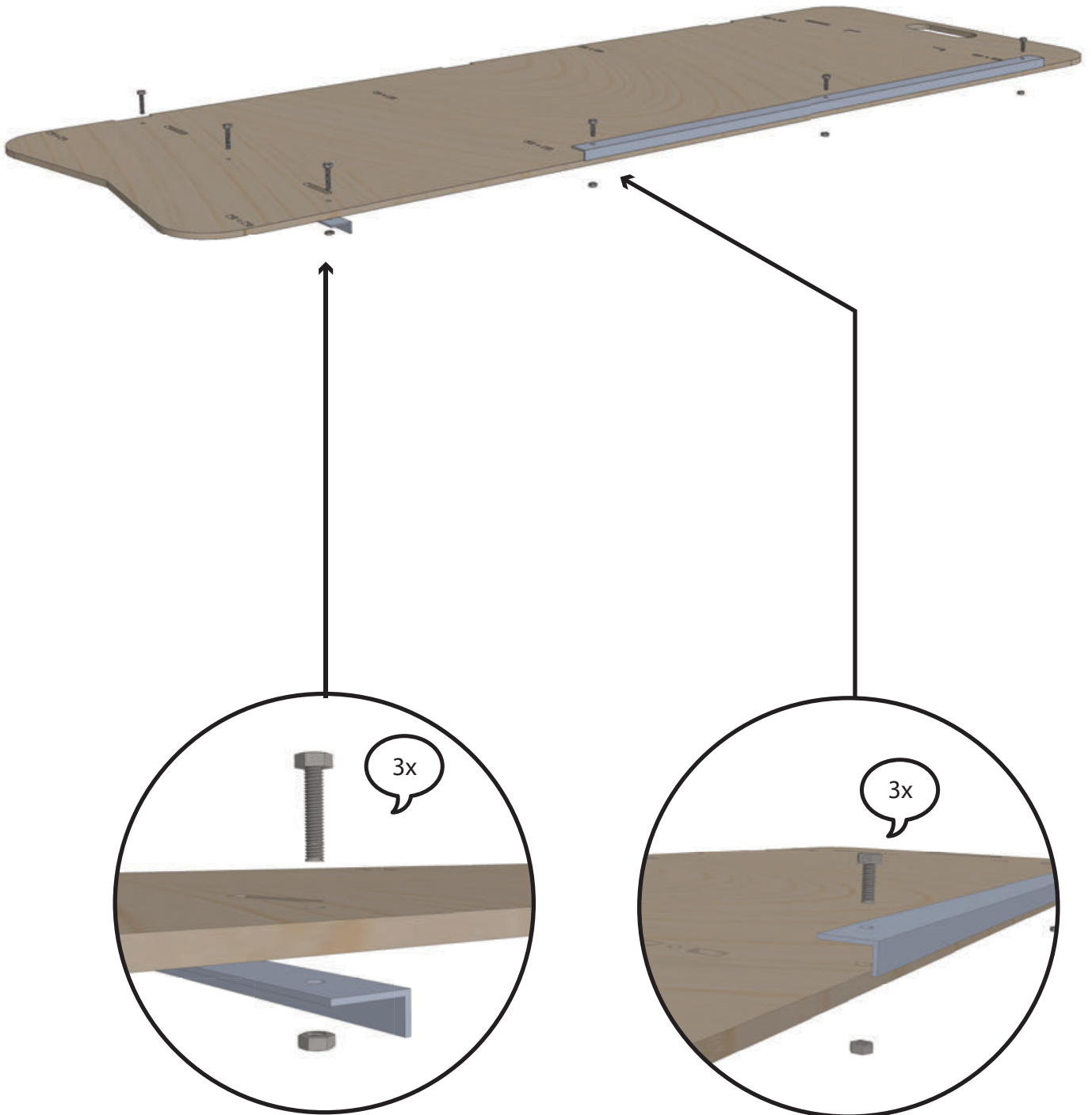**Back**   **Left**   **Right**

Door
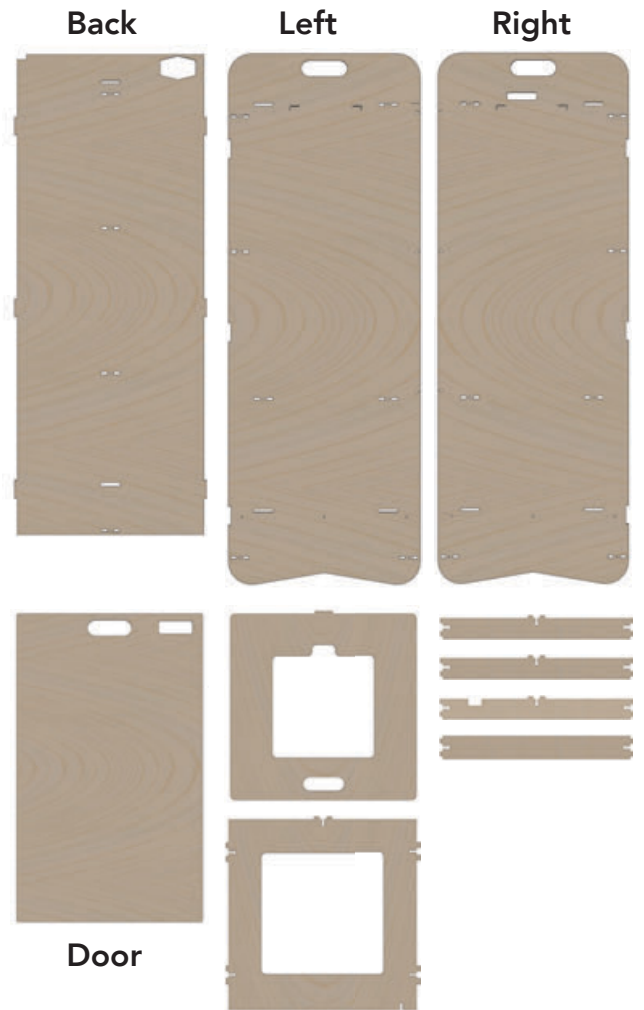
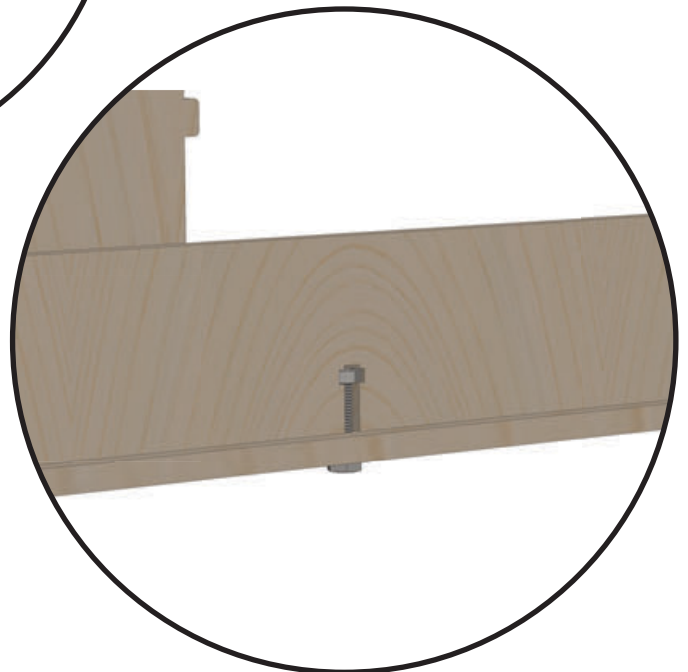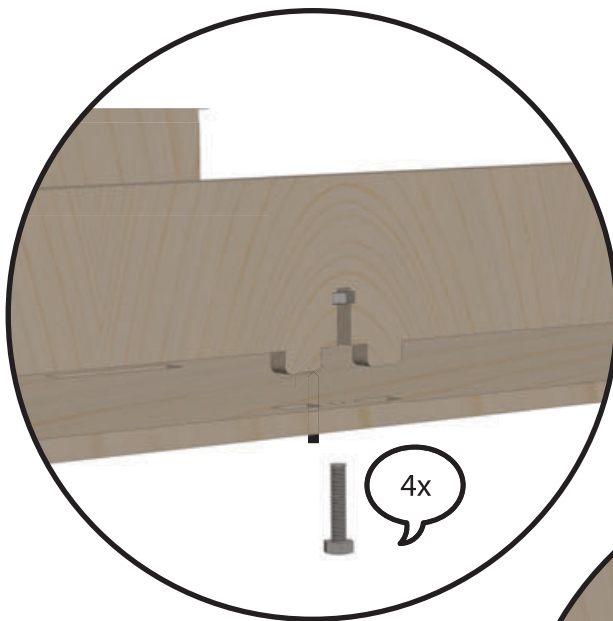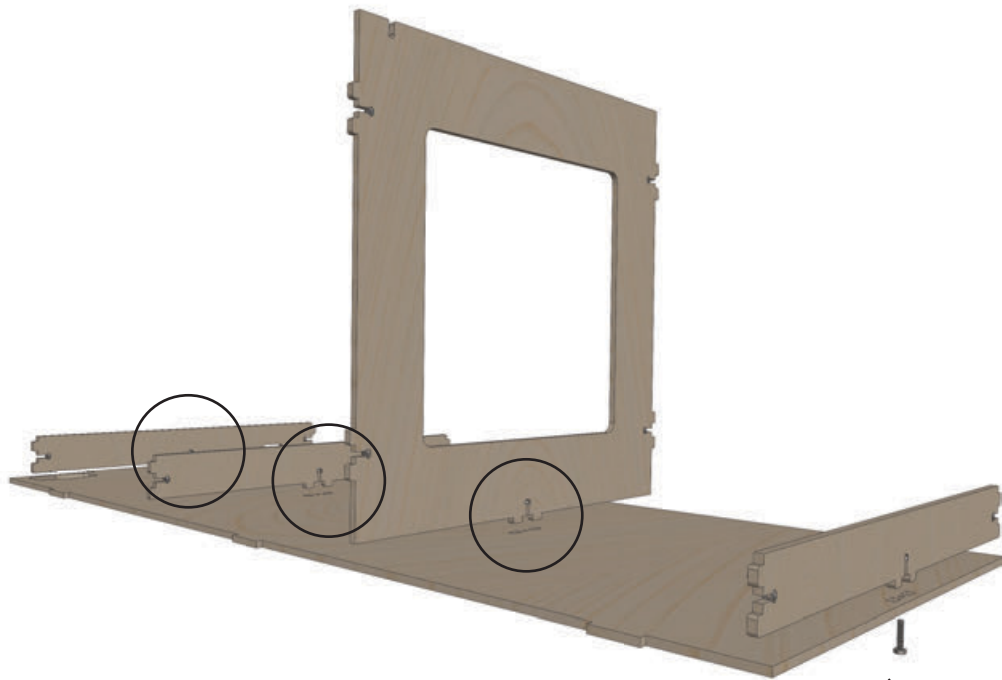**2.0** Attach the reflective self-sticking foil to inside of the
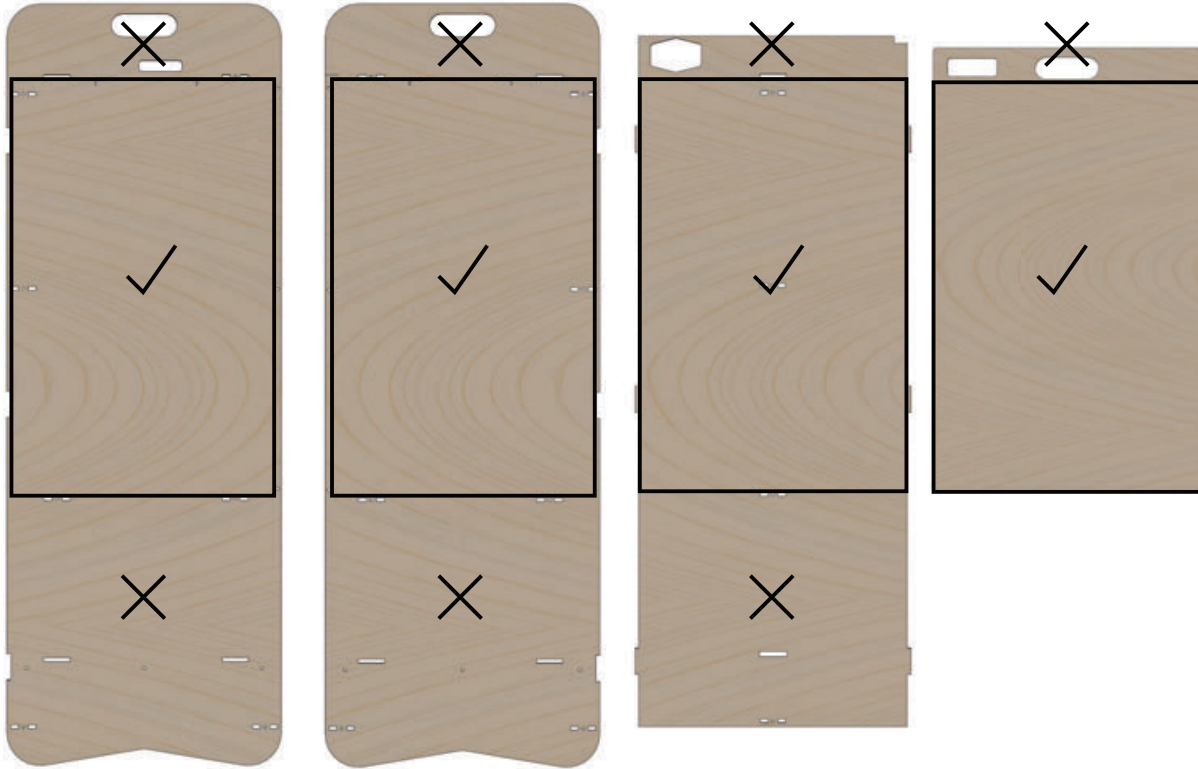
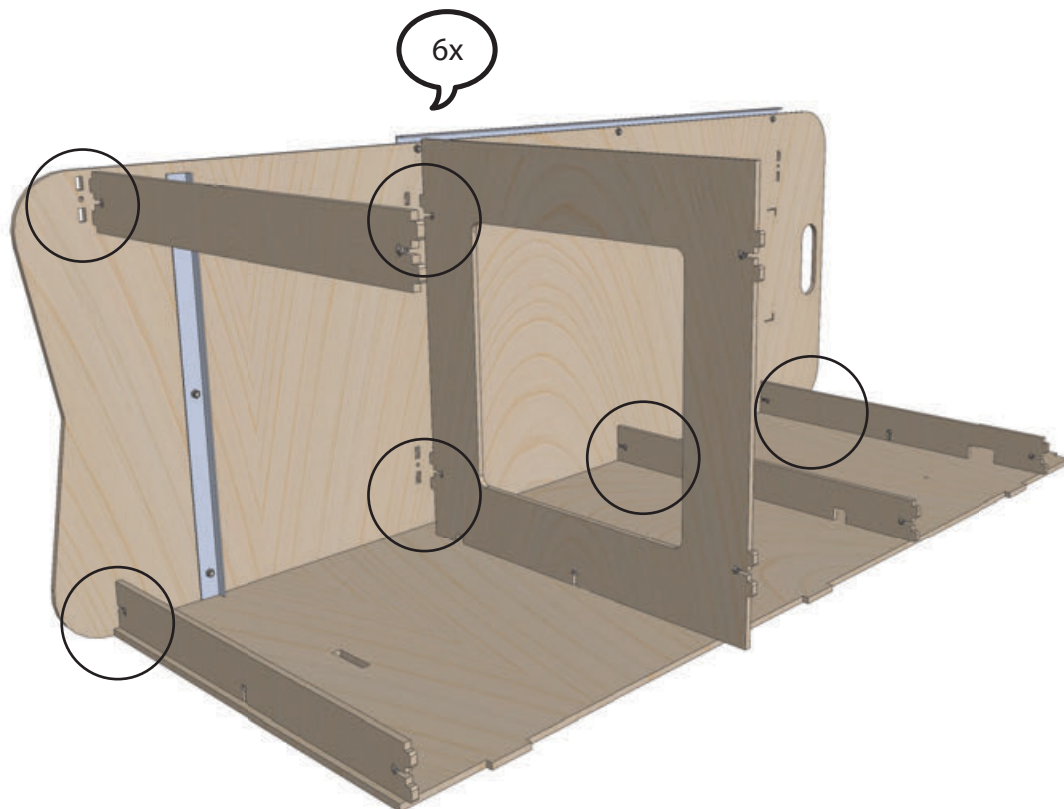**2.1** Attache the profiles to the right panel

3x

3x

3x
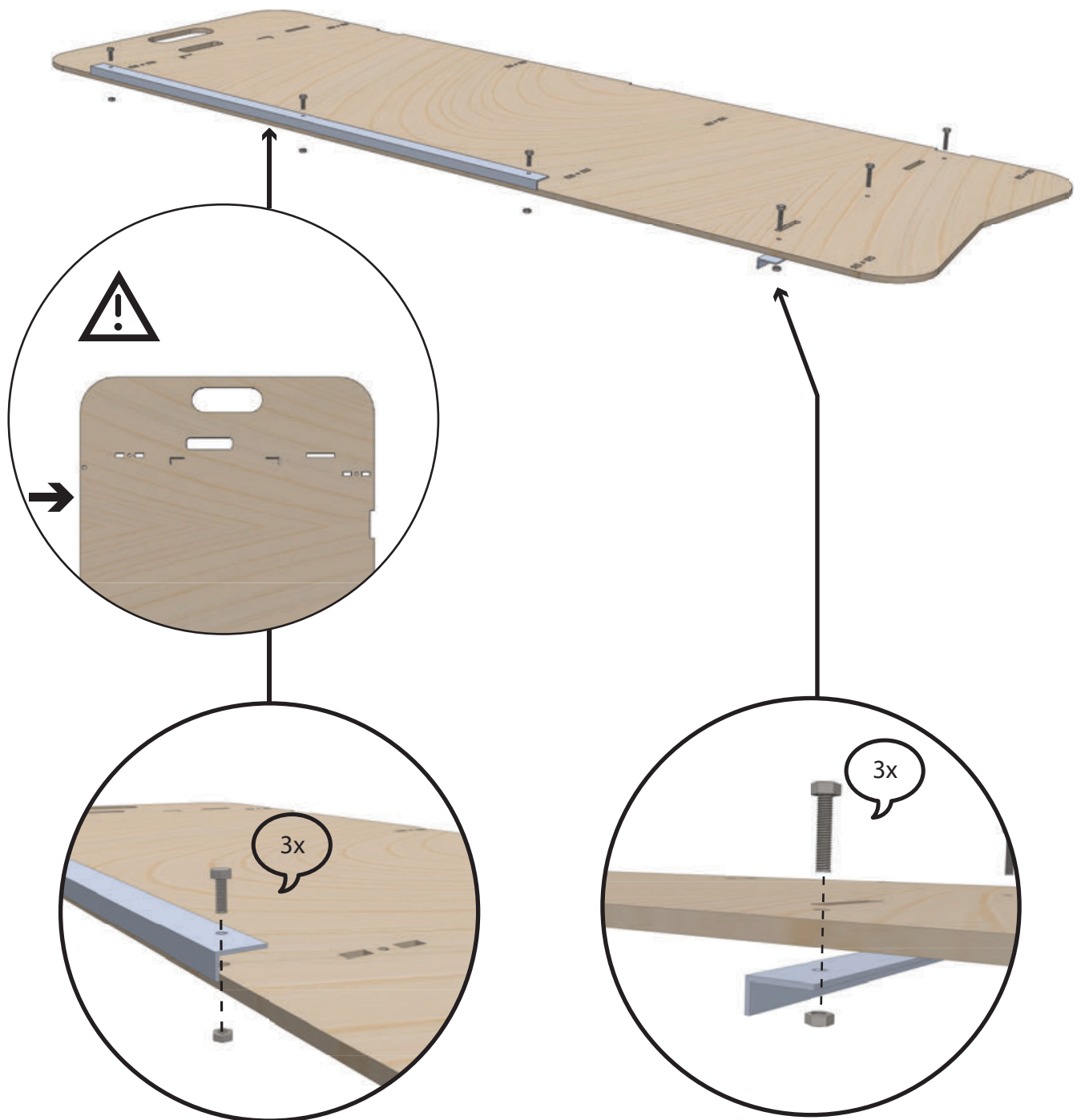
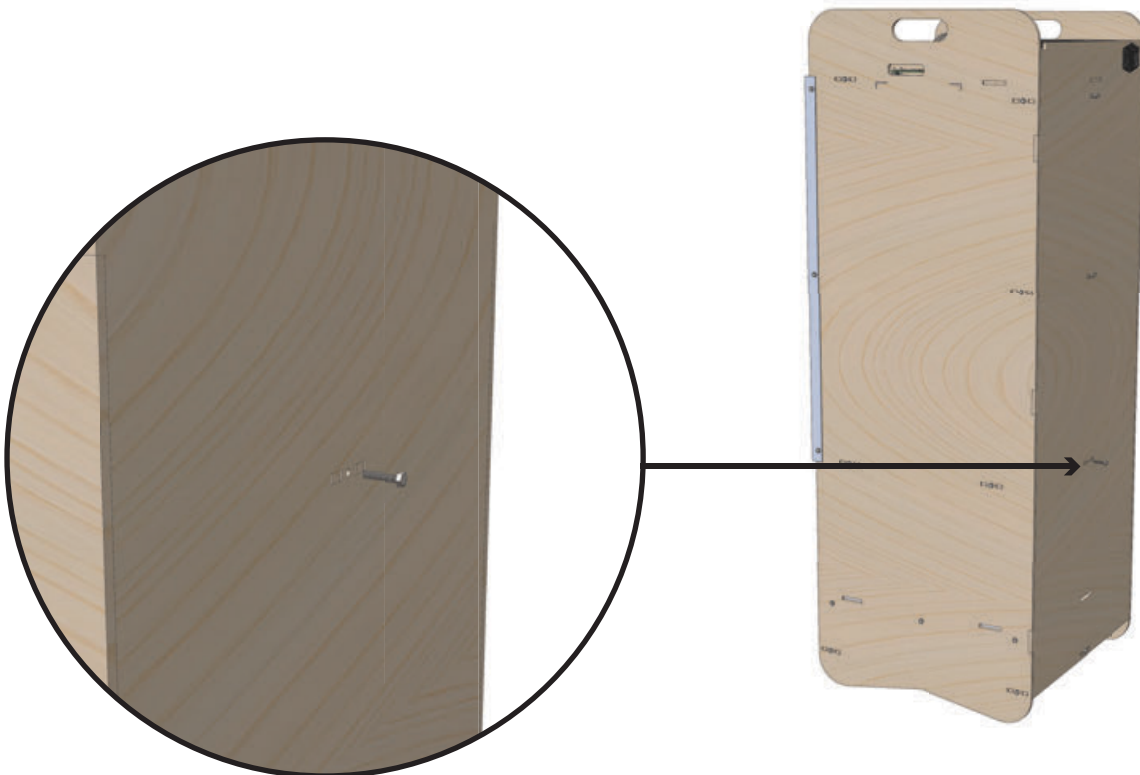## 2.2 Attach the profiles to left panel
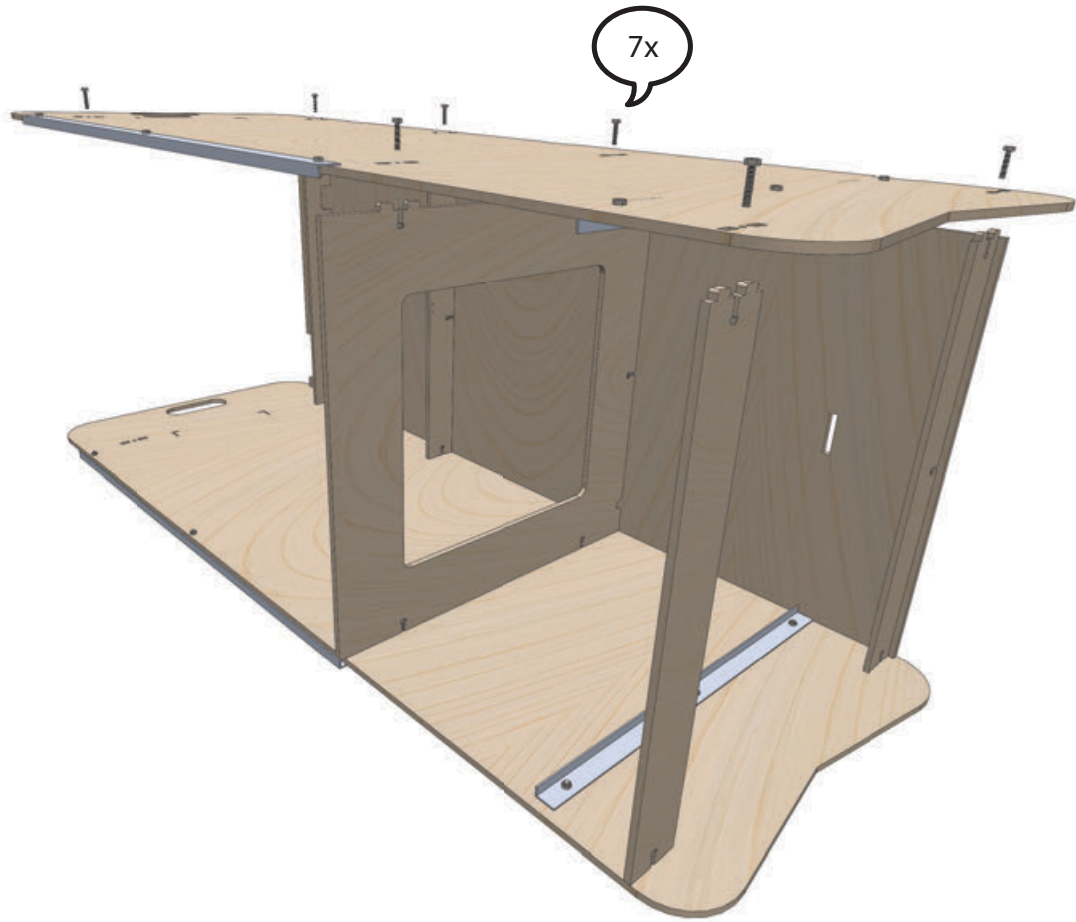
3x

3x

2.3 Assemble the structure
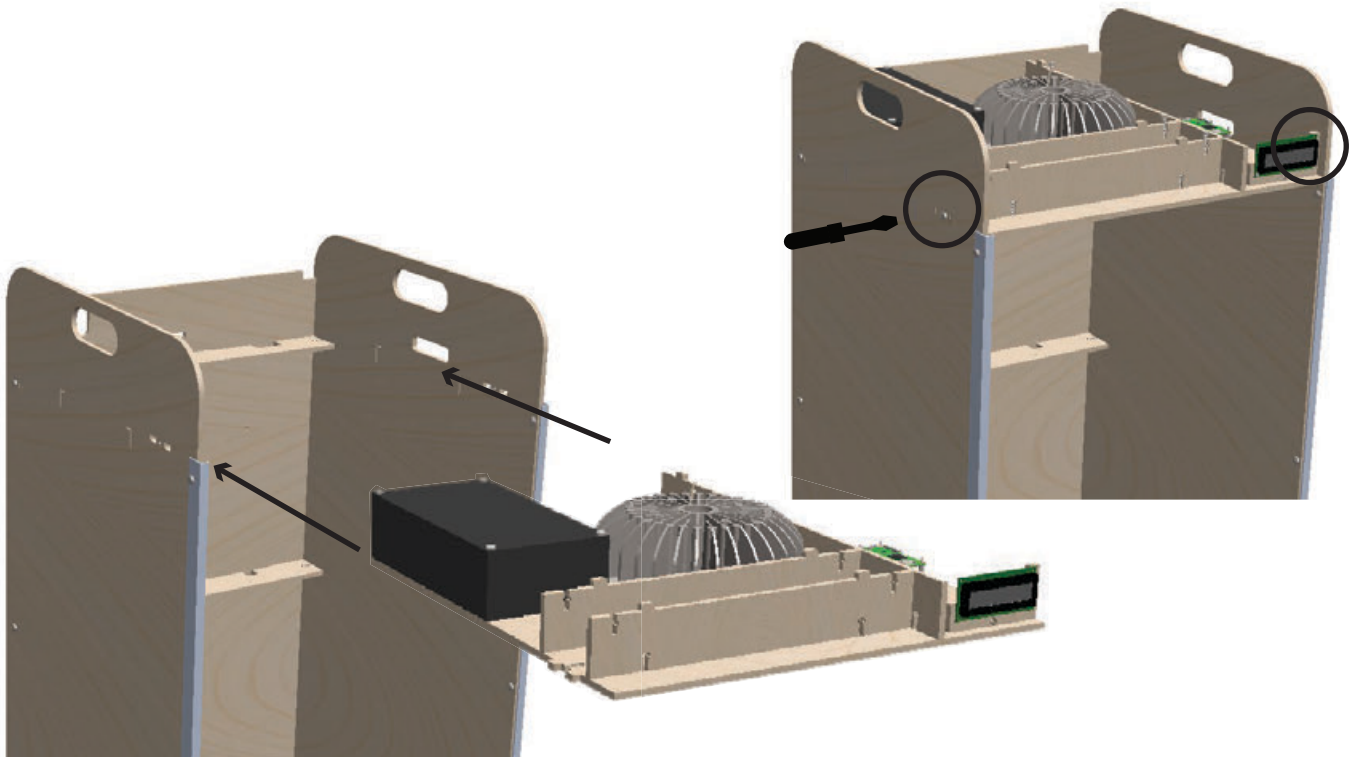
4x

2.4   Attach the left panel to structure
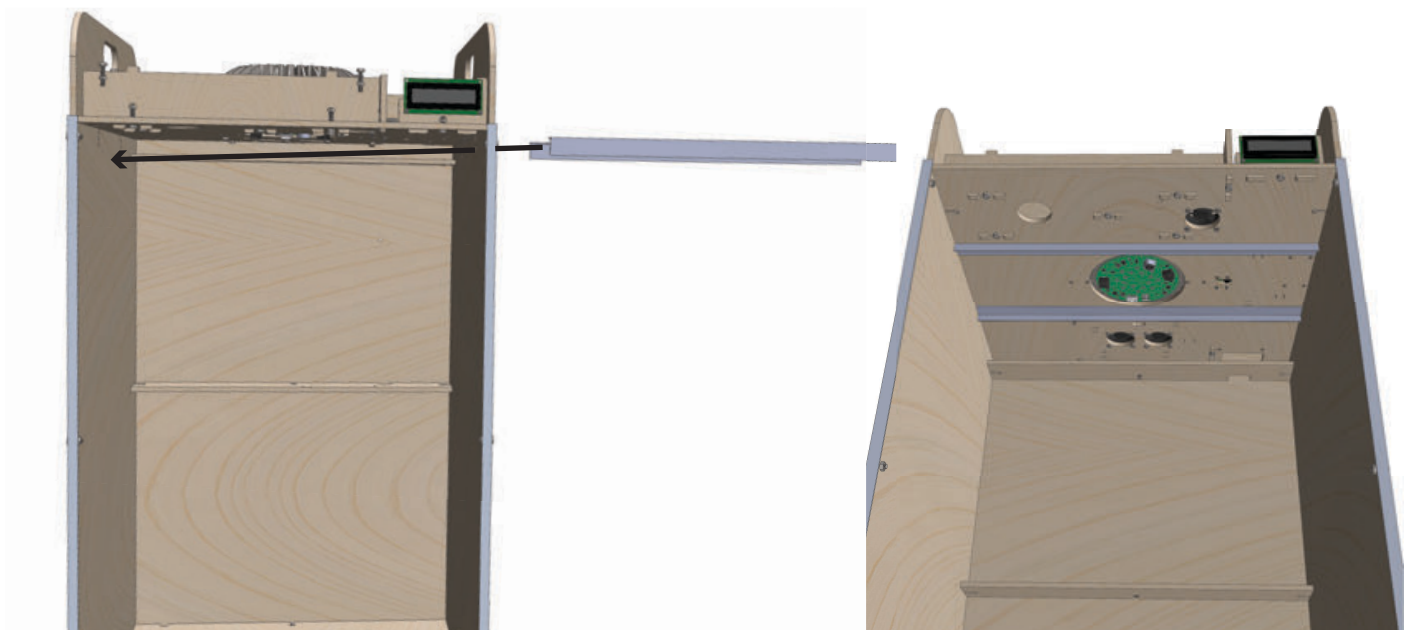

6x

2.5 Attach the right panel to the structure

7x

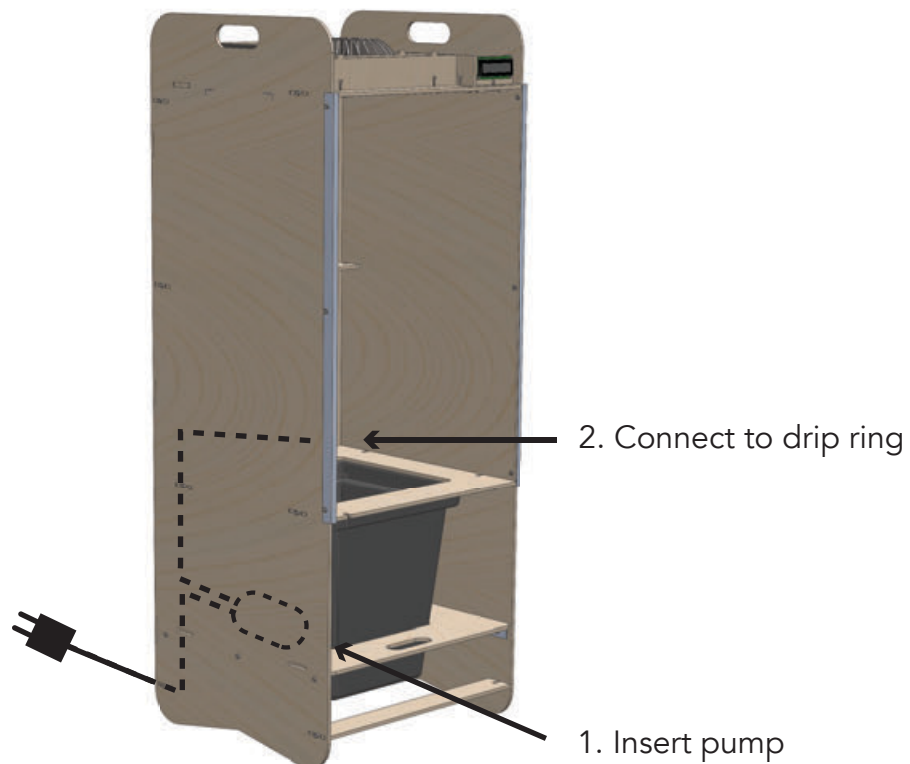**3.1** Insert top panel and L profiles under top panel

3.2 Insert top panel and L profiles under top panel
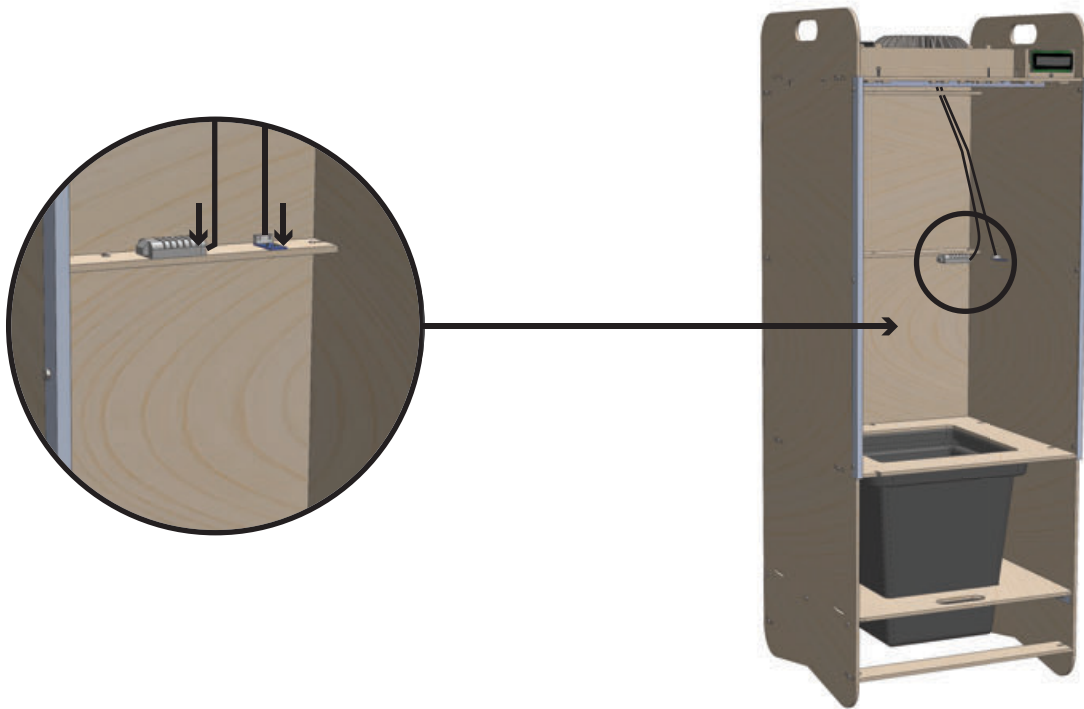
4.1 Insert the large hydroponics container

4.2 Put in pump and wire it through

2. Connect to drip ring

1. Insert pump

ⓘ See also instruction of hydroponics unit
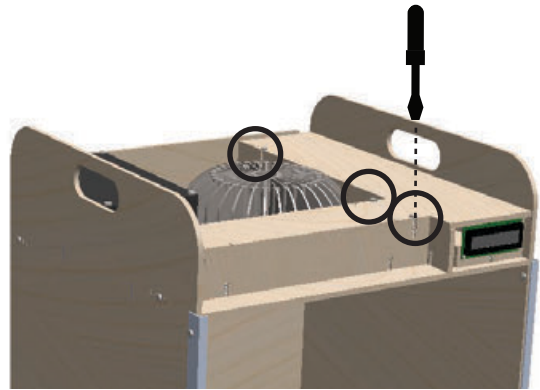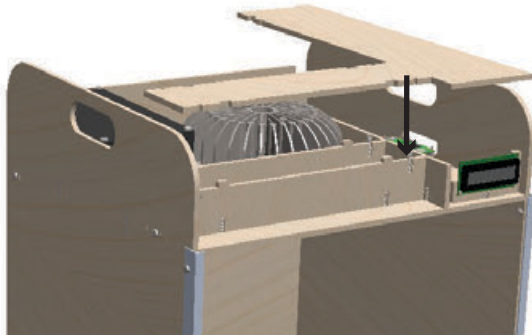
5.1 Fixate the ligth and humidity sensor
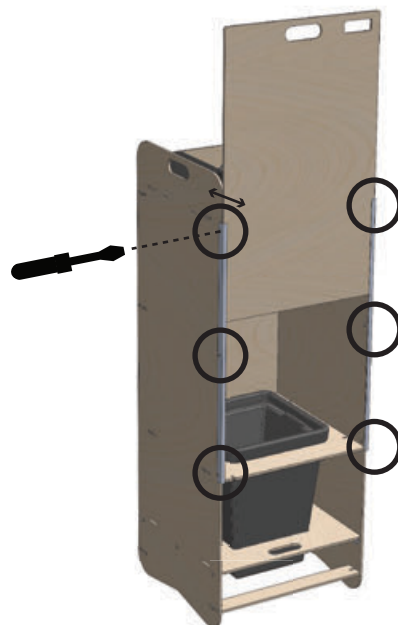

5.2 Insert small container and temperature sensor

You might need to drill the hole in the granulate container bigger to be able to stick the sensor through

6 INSTALL TOP COVER + SLIDING DOOR

6.1 Add and fix the top cover

6.2 Add front panel and adjust freedom of sliding

READY TO FLY!