ESIP
CLIMATE
CHANGE
XPLORERS

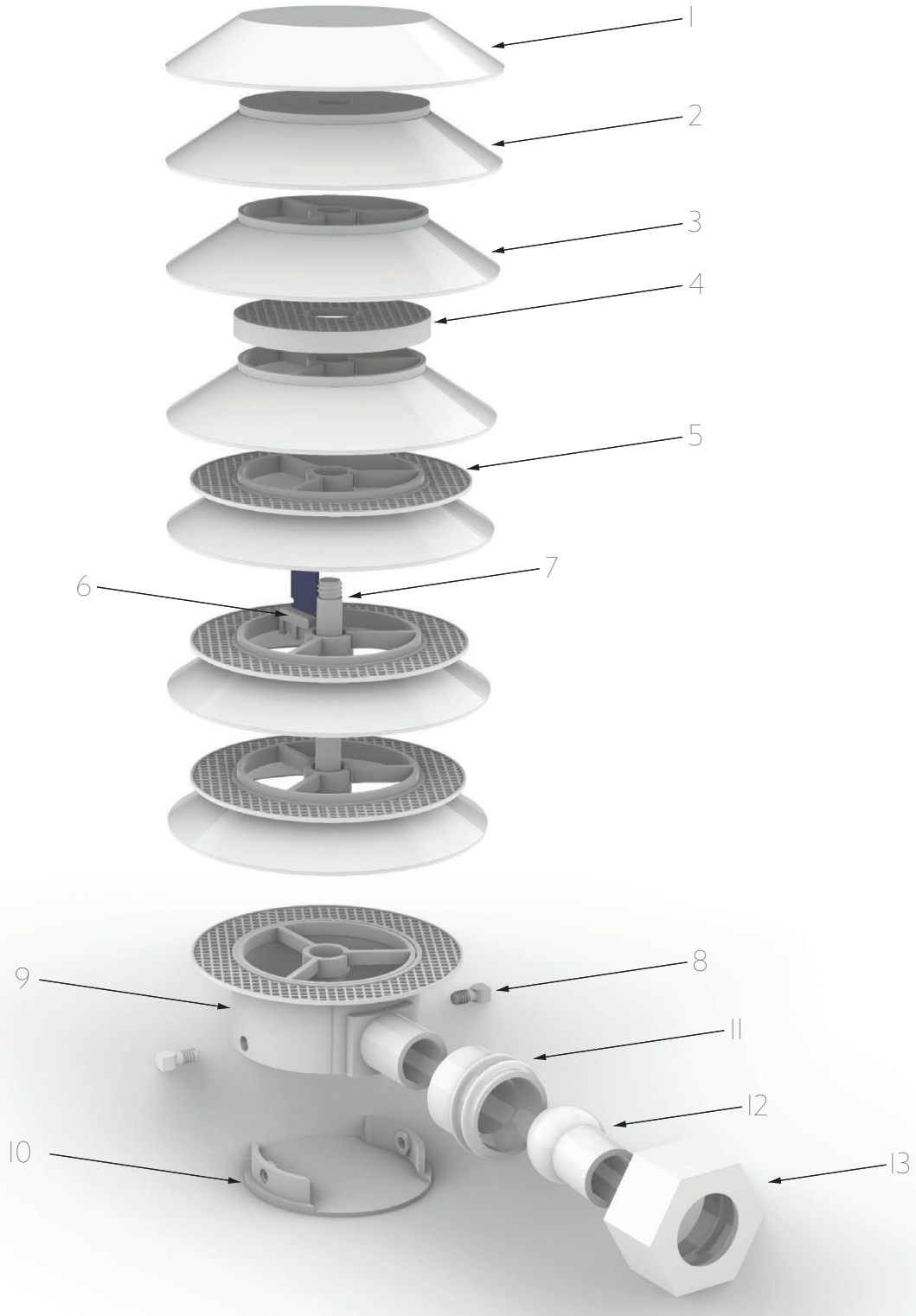
ECCX ATMOS NODE ASSEMBLY

ESIP

DESIGN
BUILD
ASSOCIATES

EXPLODED COMPONENTS

The ATMOS Node allows multiple atmospheric conditions to be sampled and measured while protecting the grove sensors from direct sunlight.

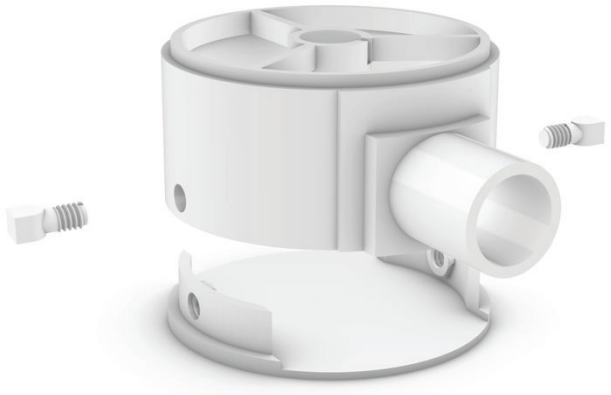


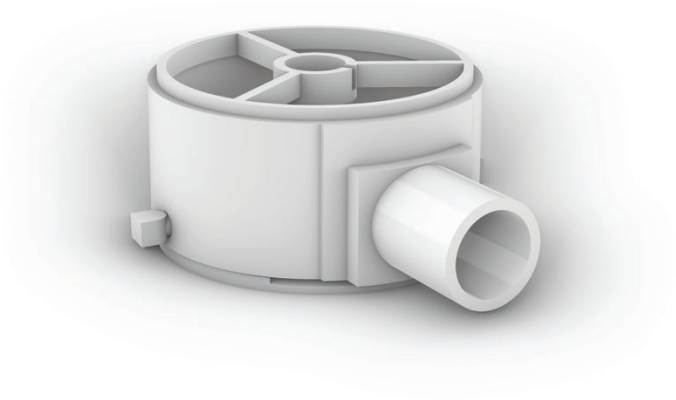
COMPONENTS LIST

#	DESCRITION	QUANTITY
1	Top Leaf	1
2	Single Leaf	1
3	Mid Leaf	5
4	Center Screen	1
5	Screen Ring	4
6	Sensor Clip	1
7	Shaft	1
8	Fastener	2
9	Base	1
10	Base Plate	1
11	Swivel Innerlock	1
12	Swivel Ball Joint Bar	1
13	Swivel Outerlock	1

ASSEMBLY
STEP 1

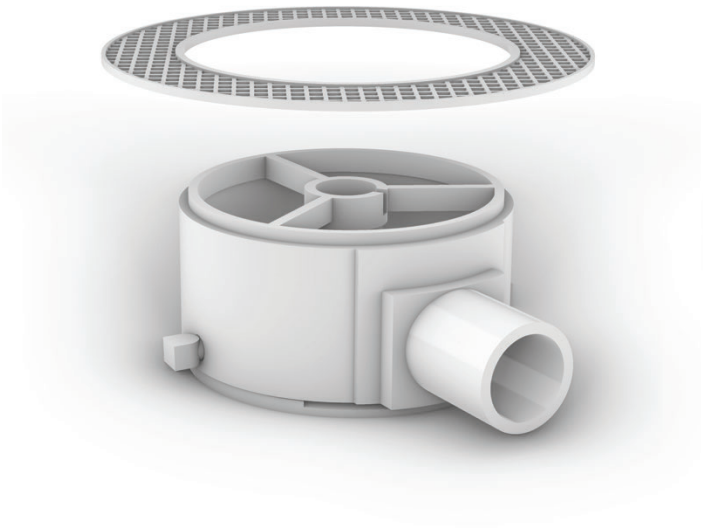
Attach Base Plate to Base with 2 Fasteners. Make sure Base Plate threads are lined up with Base holes.

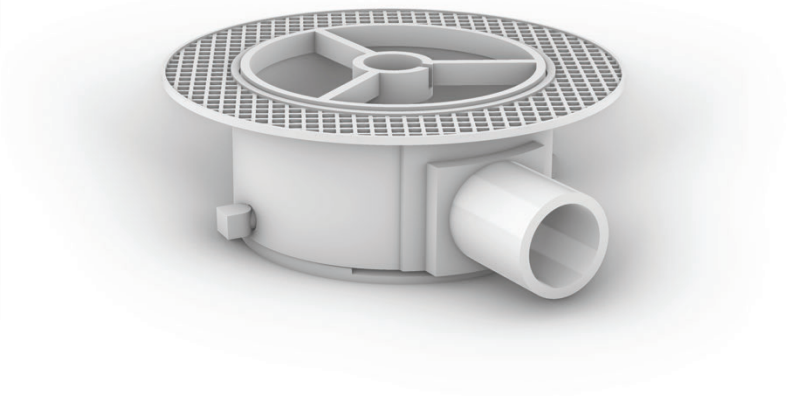




ASSEMBLY
STEP 2

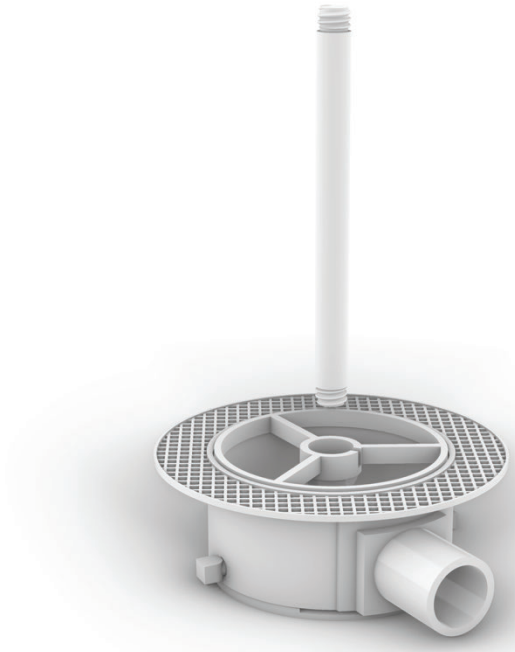
Place one Screen Ring on the top end of the Base.





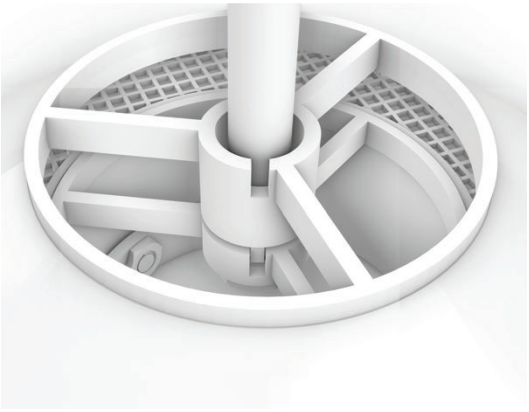
ASSEMBLY
STEP 3

Thread the short end of the Shaft (2 threads) into the center of the Base.



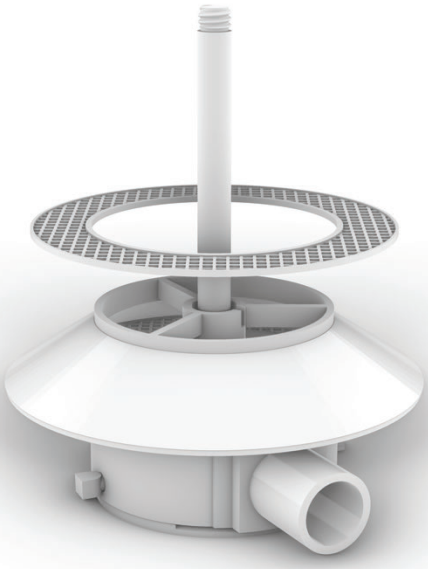
ASSEMBLY
STEP 4

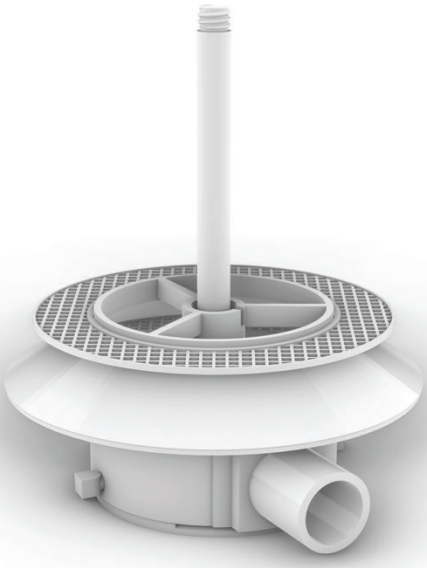
Position the first Mid Leaf down the Shaft making sure to line up the tongue in the center of the leaf with the grove in the center of thee base.



ASSEMBLY
STEP 5

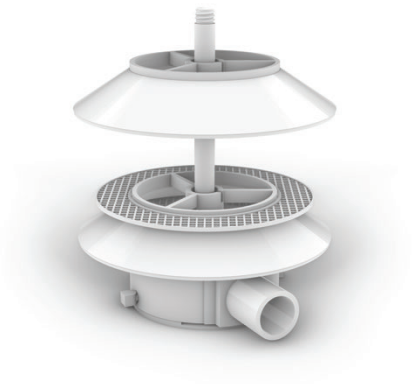
Place the second screen Ring on top of the first mid Leaf.

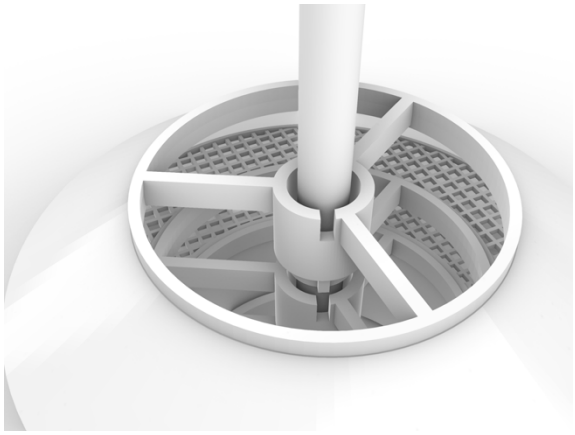




ASSEMBLY
STEP 6

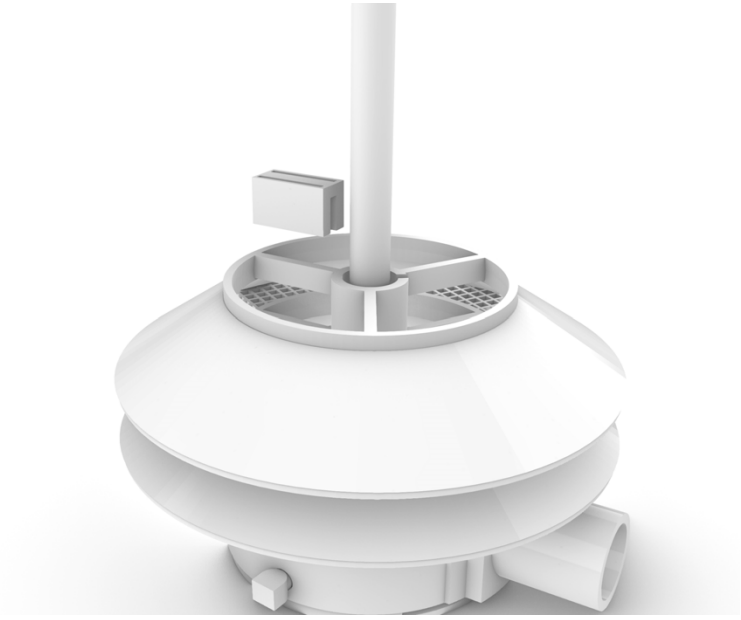
Position the second Mid Leaf down the Shaft making sure to line up the tongue in the center of the leaf with the grove in the center of the first leaf.

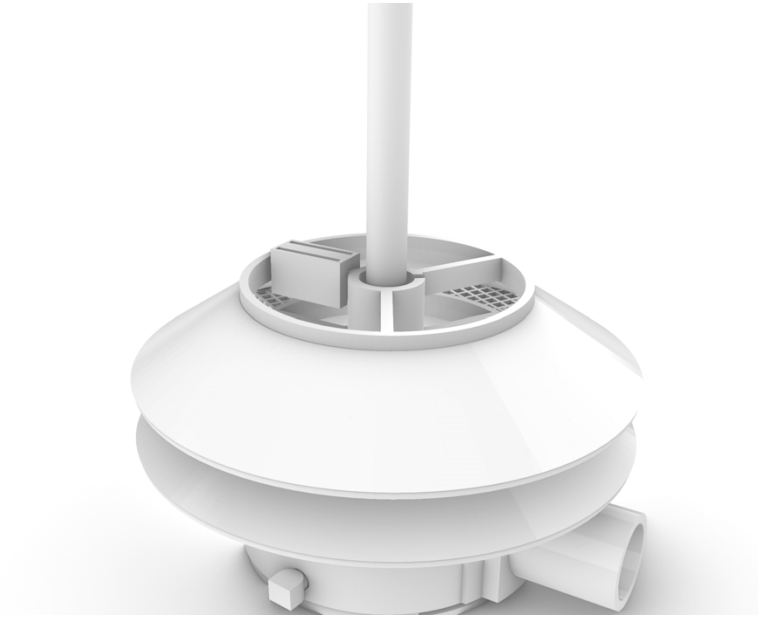




ASSEMBLY
STEP 7

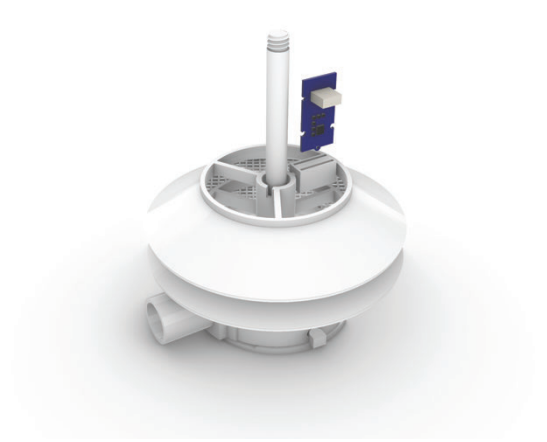
Connect the Grover Sensor Clip holder to the inner arms of the second Mid Leaf.

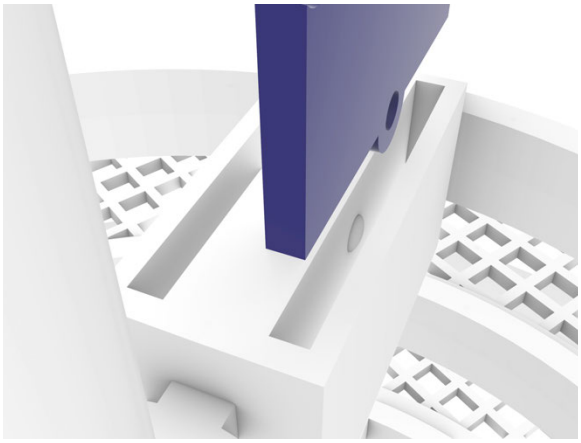


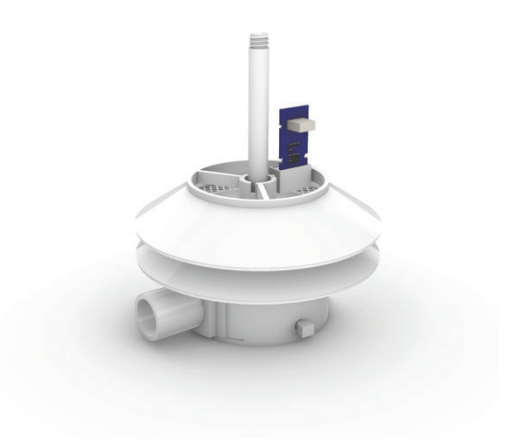


ASSEMBLY STEP 8

Slot the grove Temperature Sensor into the Clip being sure to snap the sensor in place over the bump within the slot of the clip.

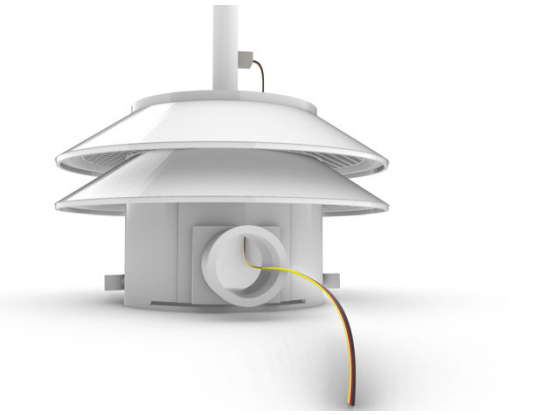






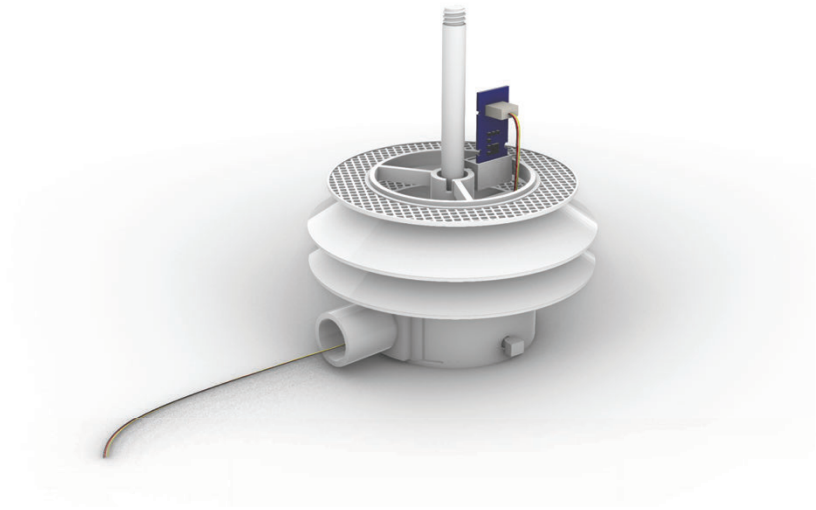
ASSEMBLY STEP 9

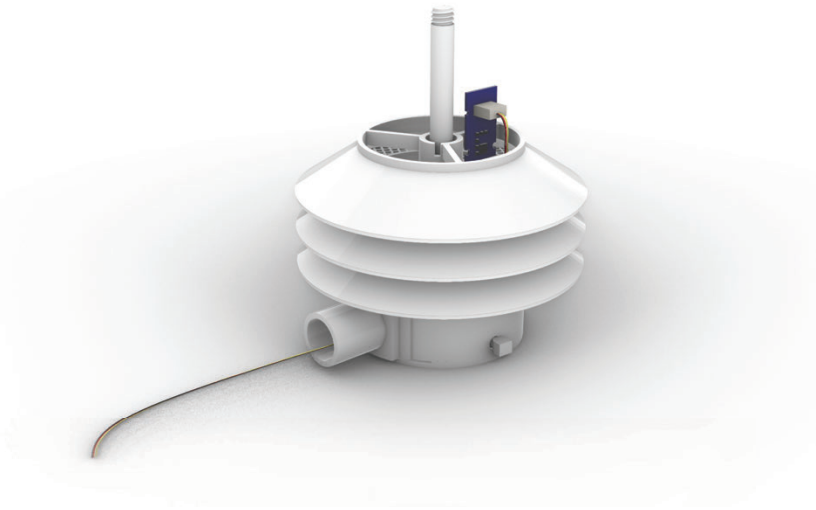
Connect the 20 cm or 50 cm grove cable to the sensor and run the wires down through the ATMOS node out of the cylinder at the base.



ASSEMBLY STEP 10

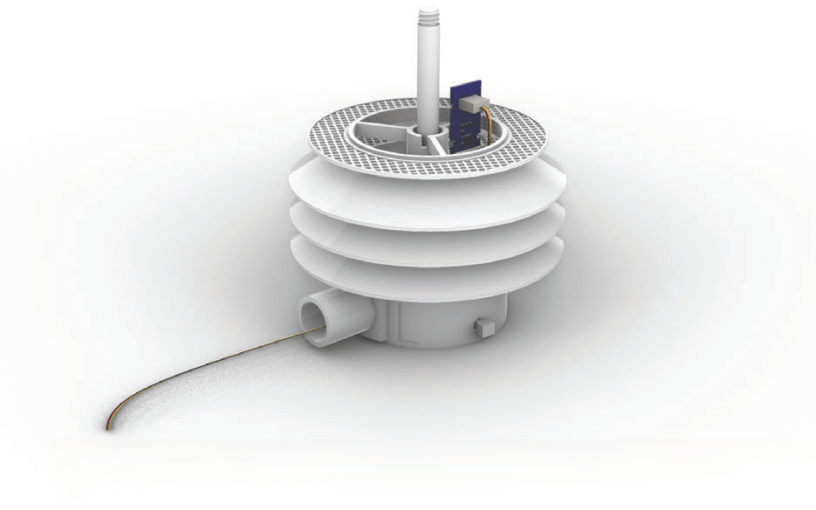
Position the Third Screen Ring and Mid Leaf down the Shaft repeating steps 5 and 6.

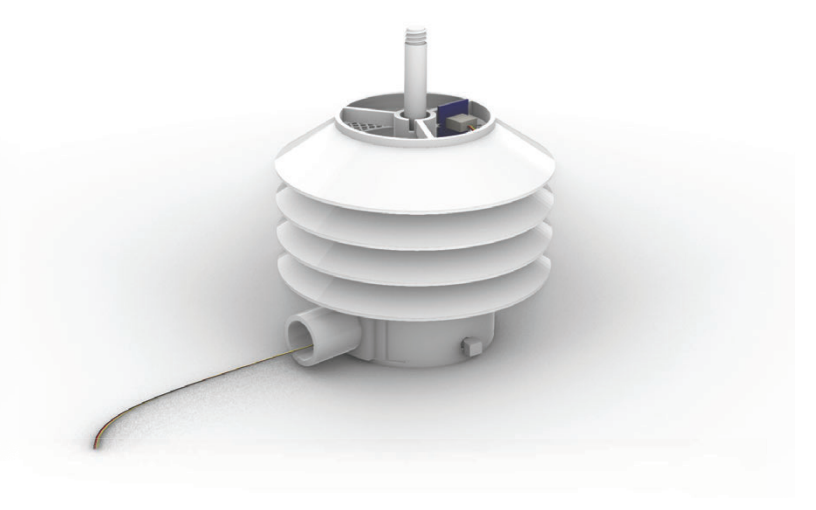




ASSEMBLY STEP 11

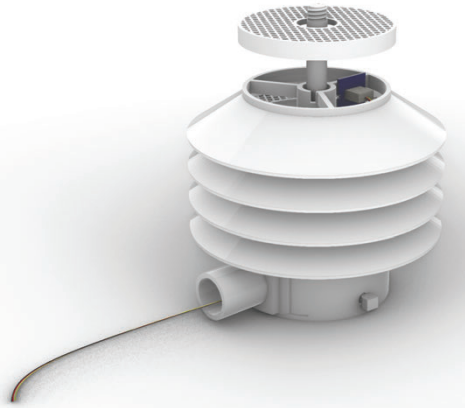
Position the Fourth Screen Ring and Mid Leaf down the Shaft repeating step 10.

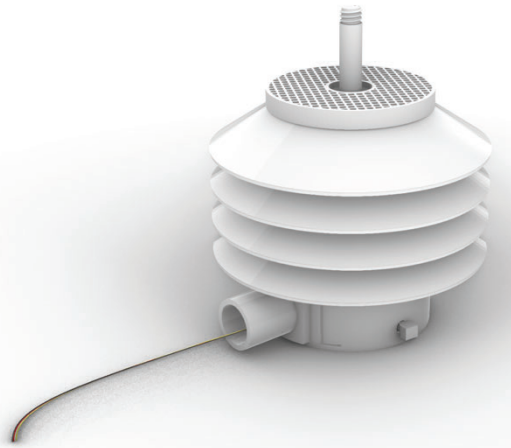




ASSEMBLY
STEP 12

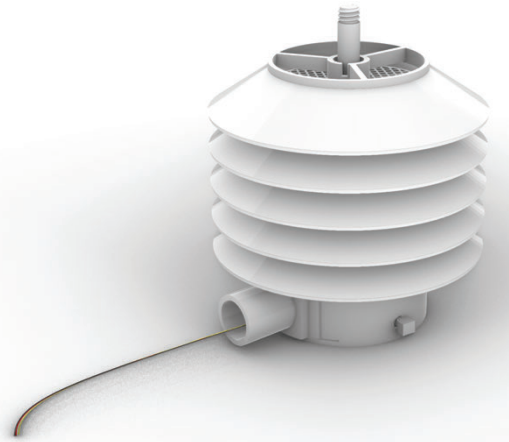
Fit the Center Screen around the rim of the fourth Mid Leaf. This screen is a tight fit it may be easier to fit the screen onto the leaf before placing the leaf on the stack.





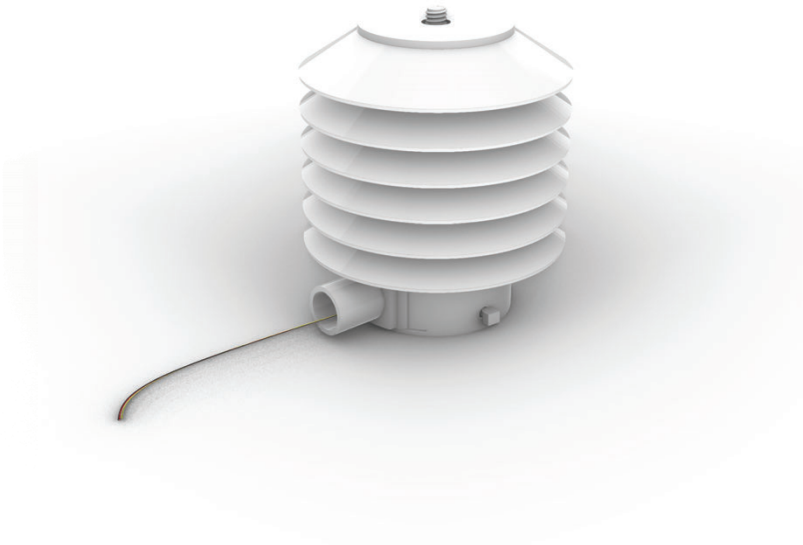
ASSEMBLY
STEP 13

Fit the Fifth Mid Leaf into the center screen ensuring a tight fit slotting the tongue of the leaf into the grove of the underlying leaf.



ASSEMBLY
STEP 14

Place the Single Leaf onto the shaft positioning the center ring into the center of the underlying leaf.

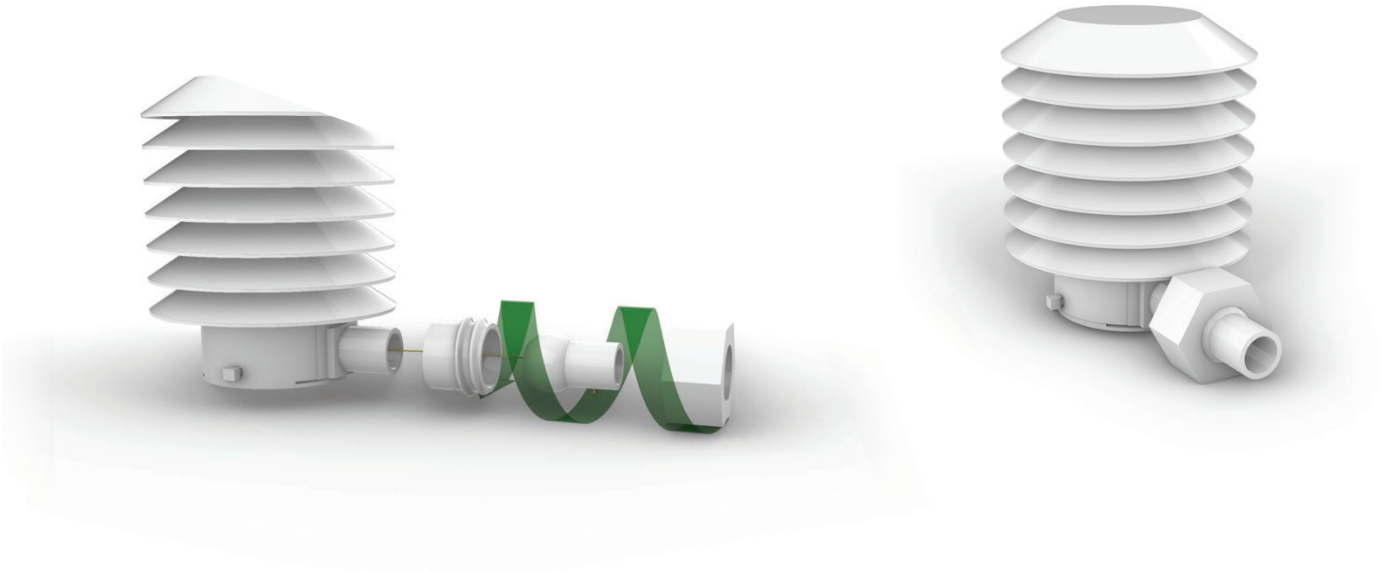


ASSEMBLY
STEP 15

Thread the top leaf onto the shaft until snug.

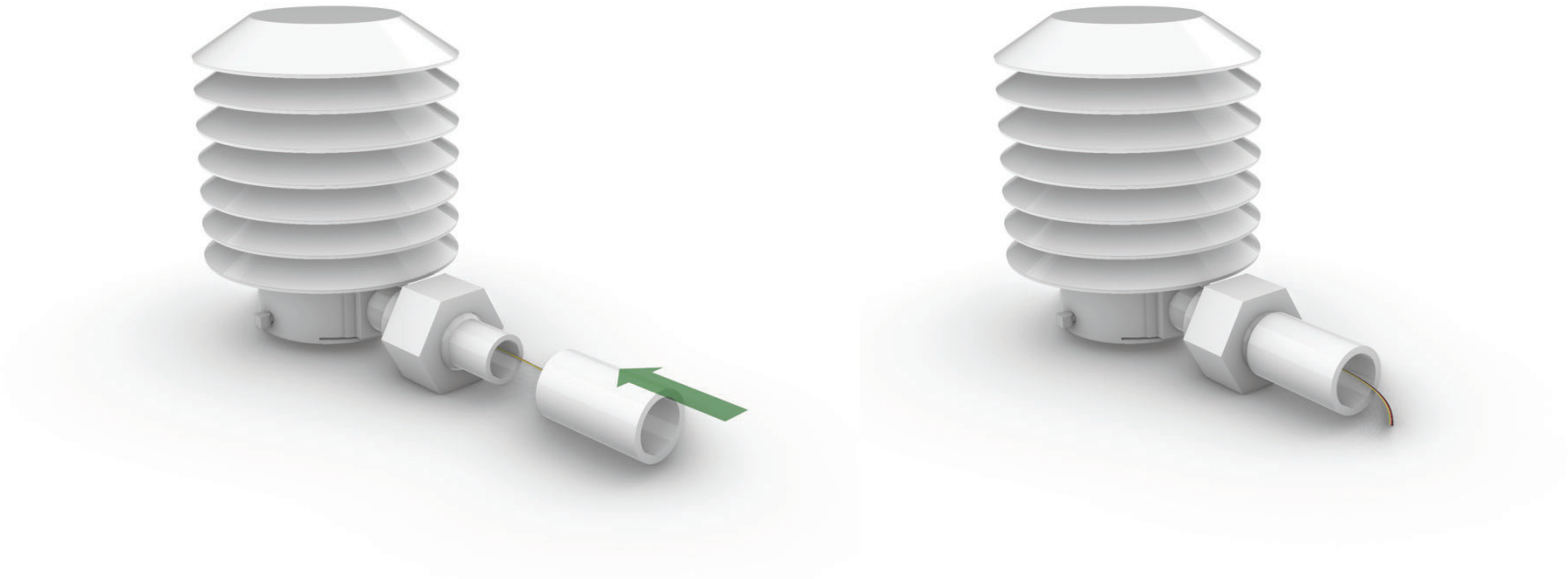
ASSEMBLY STEP 16

Thread the swivel outerlock onto the swivel innerlock placing the ball joint bar in the center. Then slot the swivel assembly onto the cylinder at the base.



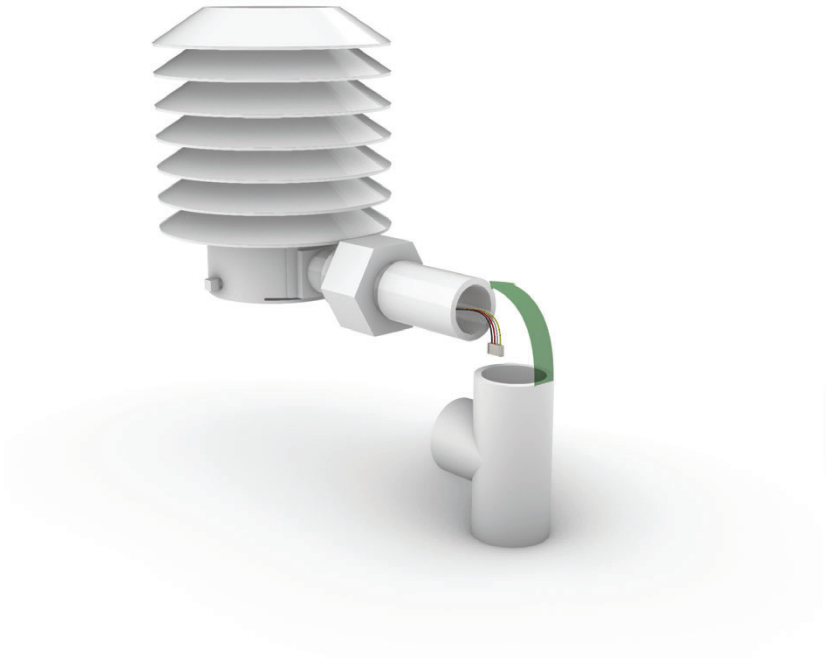
ASSEMBLY STEP 17

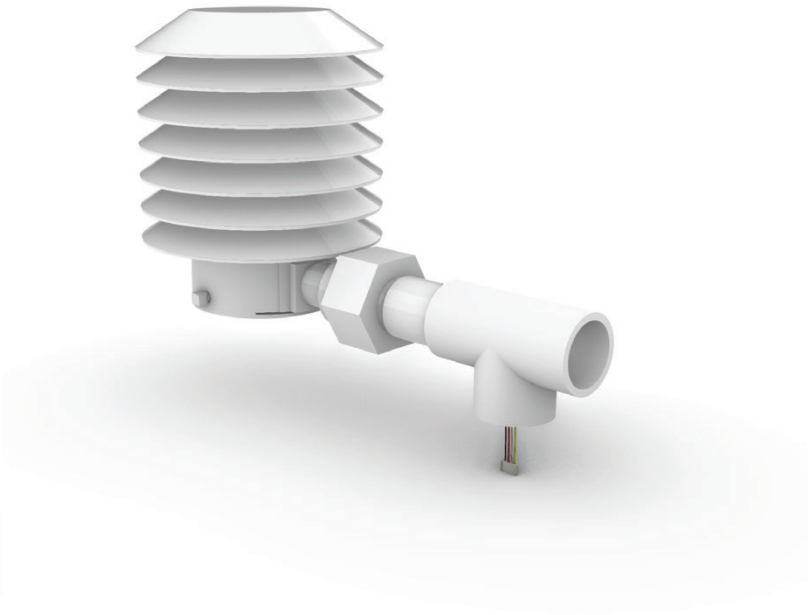
Cut a section of 1" PVC pipe 55 mm or 2 1/4" long and slot it onto the end of the ball joint bar.v



ASSEMBLY STEP 18

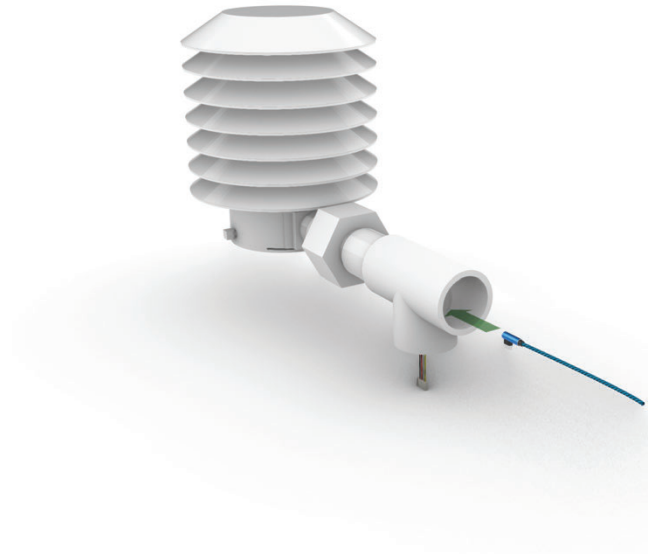
Place the PVC T-joint in the smaller PVC short Arm. Be sure that the grove cable end is sticking out of the bottom of the T-Joint.

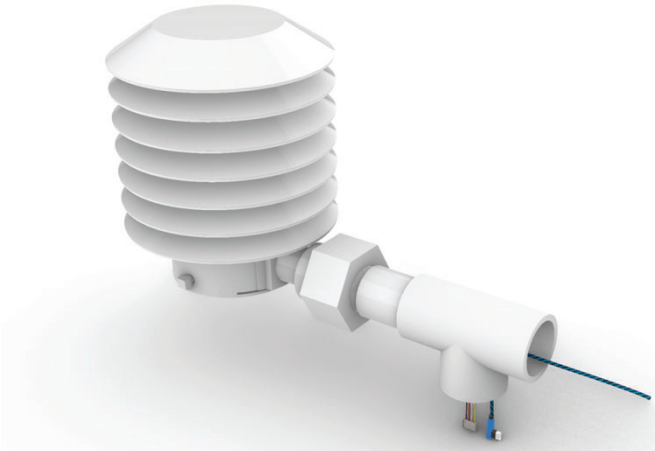




ASSEMBLY STEP 19

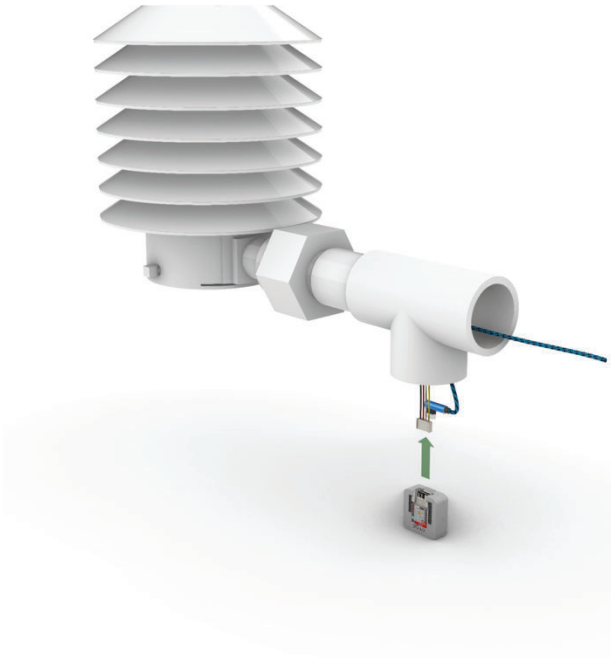
Insert the USB-C Power cord into the T-Joint.

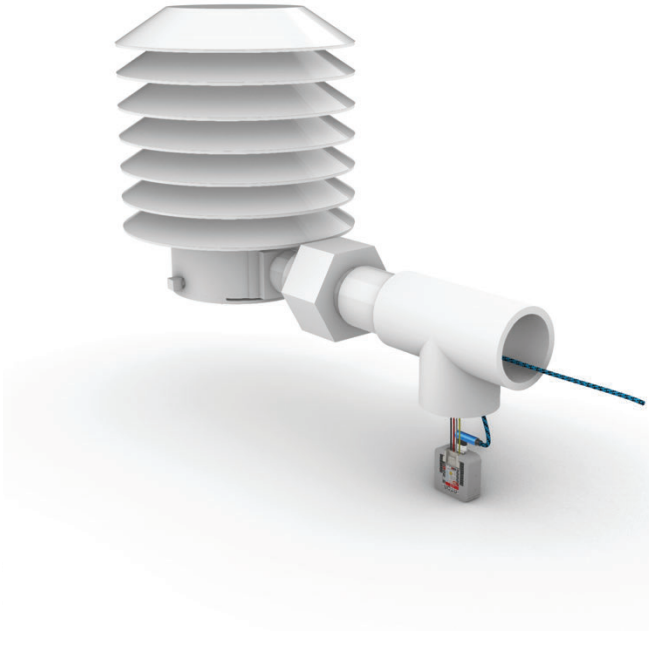




ASSEMBLY STEP 20

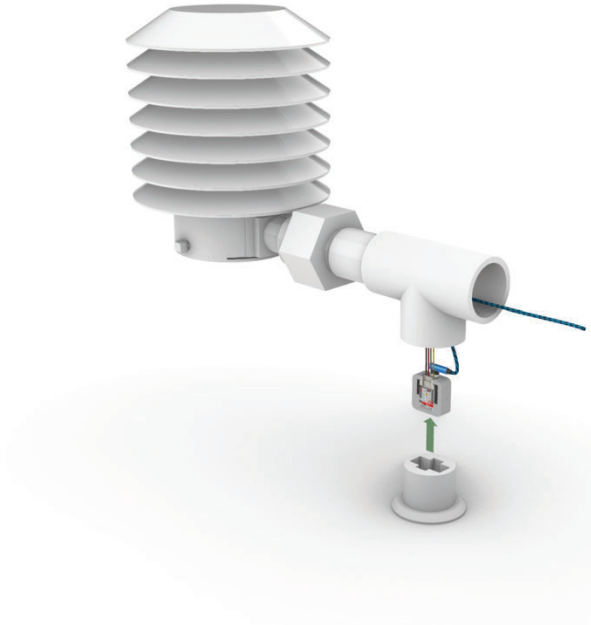
Connect the grove and power cords to the microprocessor.

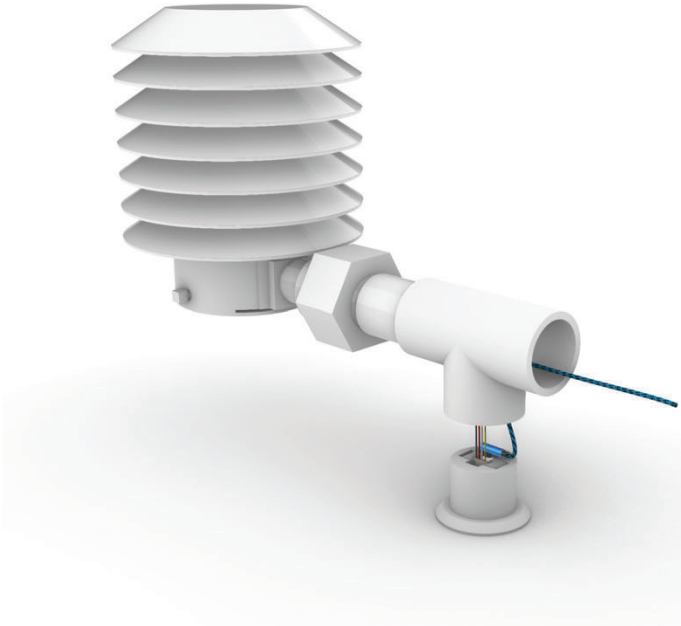




ASSEMBLY STEP 21

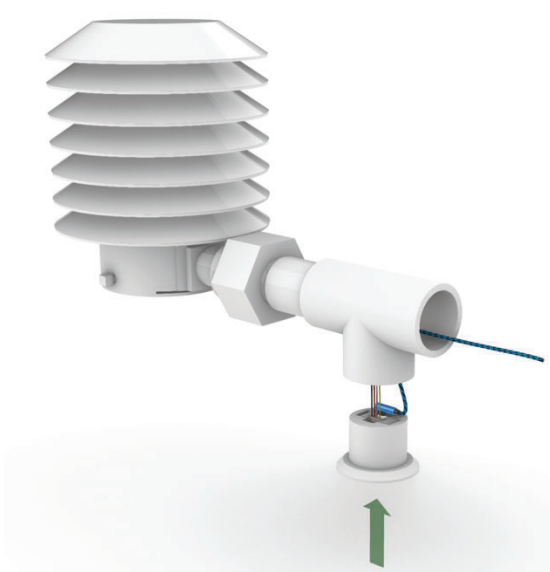
Insert the connected microprocessor into the micro holder.

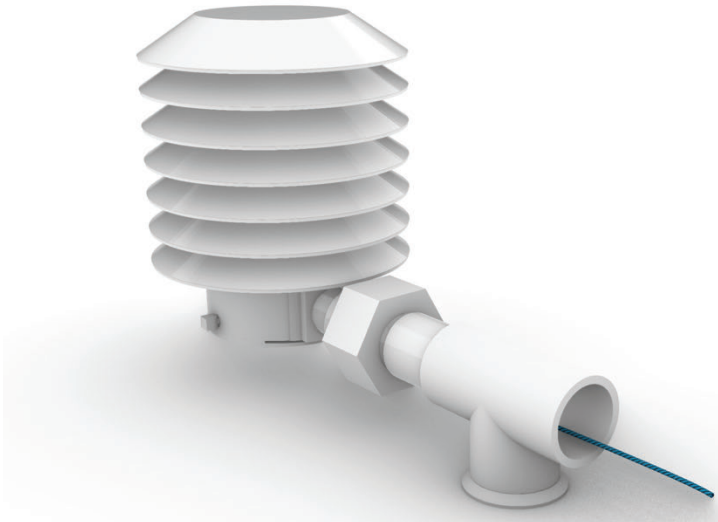




ASSEMBLY STEP 22

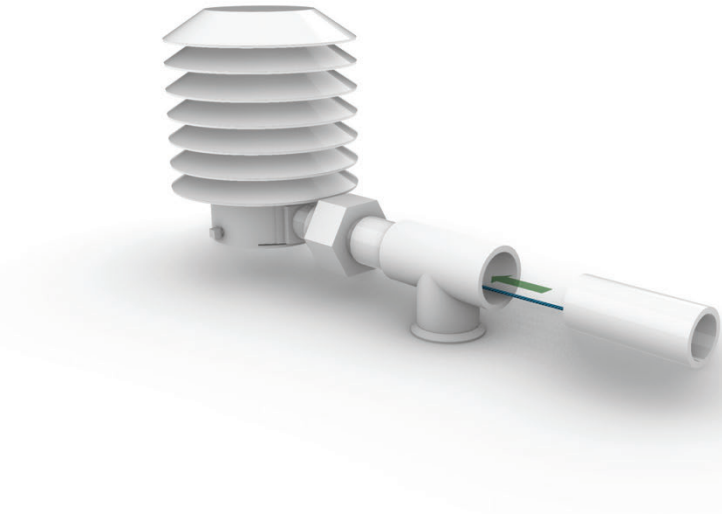
Push the Micro holder up into the T-joint.

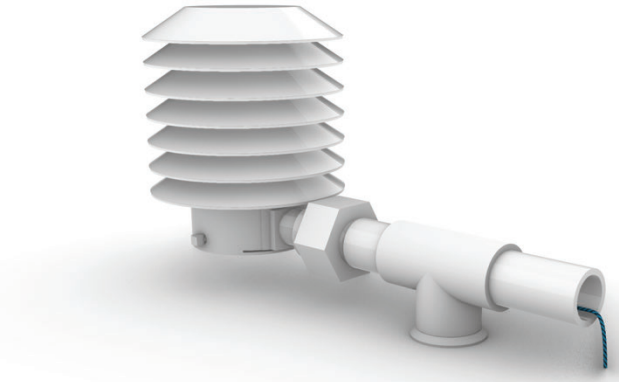




ASSEMBLY STEP 23

Cut another 3" piece of 1" PVC and insert it into the T-joint ensuring that the power cord is flowing through.





ASSEMBLY COMPLETE

The wires and assembly should be assembled as such.