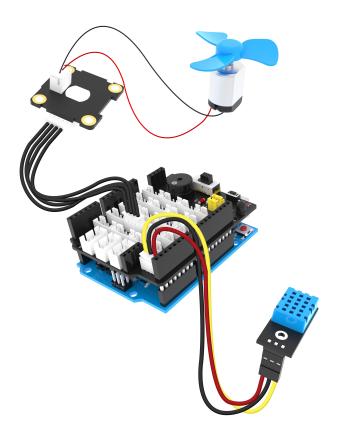
**Experimental content:** Check the ambient temperature and humidity. When the temperature or humidity is higher than the setting value, the buzzer will alarm and turn on the fan. When the temperature or humidity is lower than the setting value, turn off the fan.

**Experiment preparation:** UNO board \*1, Plugkit sensor expansion board \*1, USB data cable \*1, 4pin cable (PH2.0) \* 1, 3pin cable (PH2.0) to DuPont line\* 1, Temperature and humidity sensor module \*1, Motor fan \*1, Motor drive module \*1

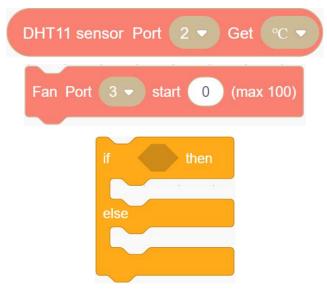
## **Experimental wiring:**



Motor drive module is connected to the interface of the sensor expansion board with silk screen (GND, 7,  $^{\sim}$ 6, 5V).

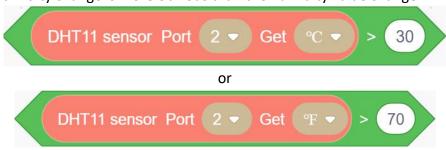
## **Experimental steps:**

1. Select the following blocks in the [Plugkit], [Operator], [Control].





2.The temperature value obtained by the temperature and humidity sensor is put on the left side of the comparison block, and modify the data on the right according to the actual situation, such as 30 ° C. The humidity change is more obvious than the humidity value change



3. When the temperature/humidity is higher than the setting value, the fan speed is 50, we need to select port to 6. Otherwise, the fan speed is set to 0 (fan is closed).



4. Put the block combination of step 3 into the loop block.



5. Compiling and uploading programs.

**Experimental phenomena:** When the humidity value is higher than 70, the fan will open. When the humidity value is lower than 70, fan is closed.