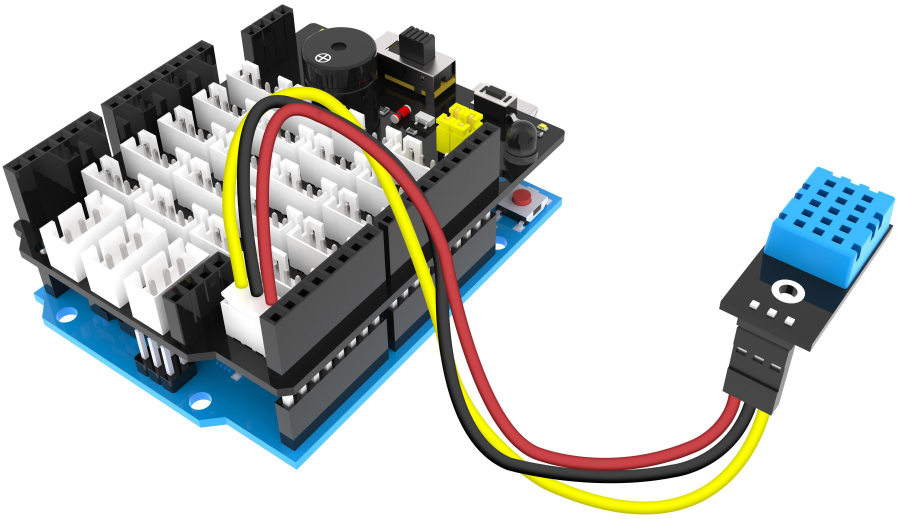
Experimental content: Detect ambient temperature and humidity, and print temperature and humidity value by serial port

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

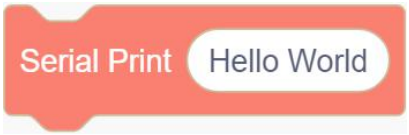
Experimental wiring:

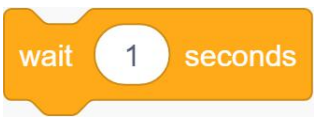


We need to use 3pin PH2.0 to DuPont cable. The red cable on the DuPont cable is connected to the "+" pin on the temperature and humidity sensor module. The black cable is connected to the "out" pin and the yellow cable is connected to "-" pin.

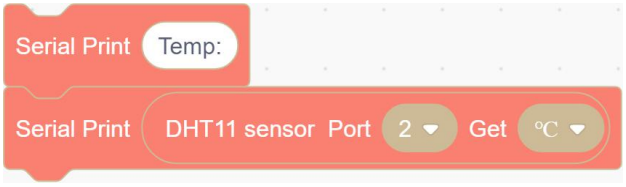
Experimental steps:

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

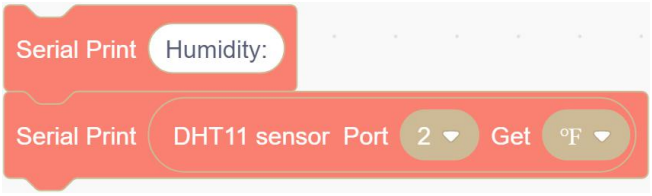




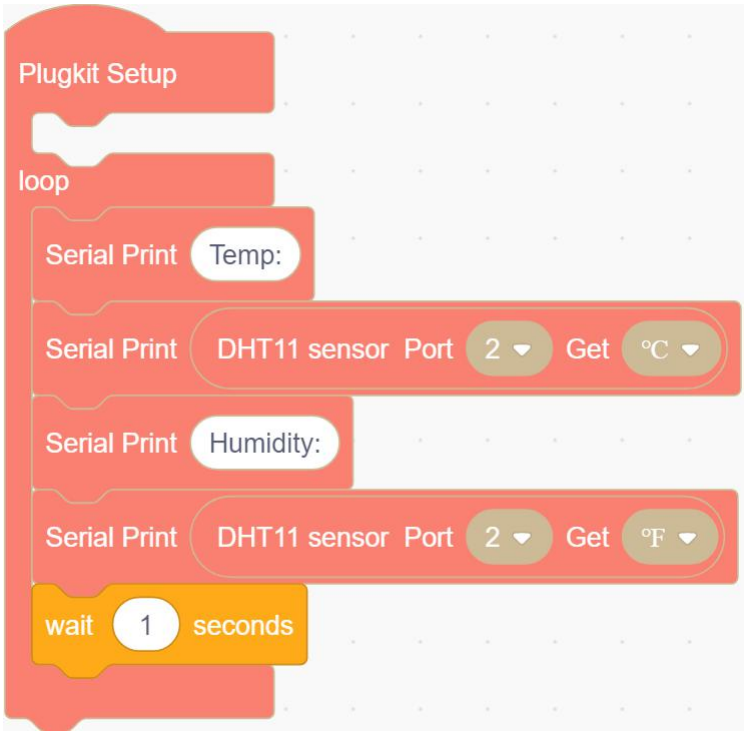
2.Put the DHT11 sensor block into Serial Print block. In order to distinguish the data printed by the serial port, we also need to add Serial Print Temp: block. The DHTLL sensor block default port 2 need not be modified.



3.The serial port prints the humidity value is the same. It can be modified by copying the combination of blocks on the last step, and the obtained ℃ is changed to the humidity ° F.



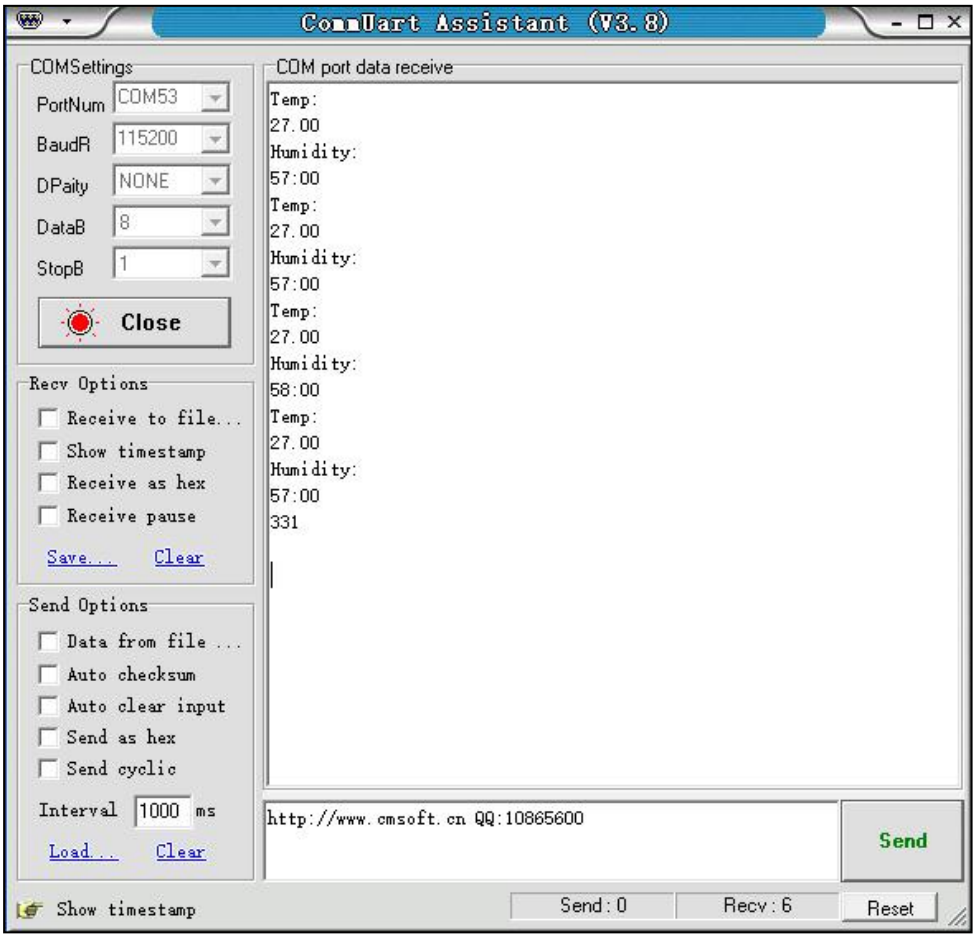
4.Put the block combination of step 2 and add “wait a seconds” block into the loop block.



5.Compiling and uploading programs.

Experimental phenomena: The serial port prints Temp: temperature value, Humidity: humidity value every 1s.

Open the serial port debugging assistant and set the baud rate to 115200. Open the serial port and observe the interface as shown below.


ComUart Assistant (V3.8)
COMSettings
PortNum
COM53
BaudR
115200
DPaity
NONE
DataB
8
StopB
1
Close
Recv Options
Receive to file...
Show timestamp
Receive as hex
Receive pause
Save...
Clear
Send Options
Data from file ...
Auto checksum
Auto clear input
Send as hex
Send cyclic
Interval
1000
ms
Load...
Clear
COM port data receive
Temp:
27.00
Humidity:
57:00
Temp:
27.00
Humidity:
57:00
Temp:
27.00
Humidity:
58:00
Temp:
27.00
Humidity:
57:00
331
http://www.cmsoft.cn QQ:10865600
Send
Show timestamp
Send: 0
Recv: 6
Reset