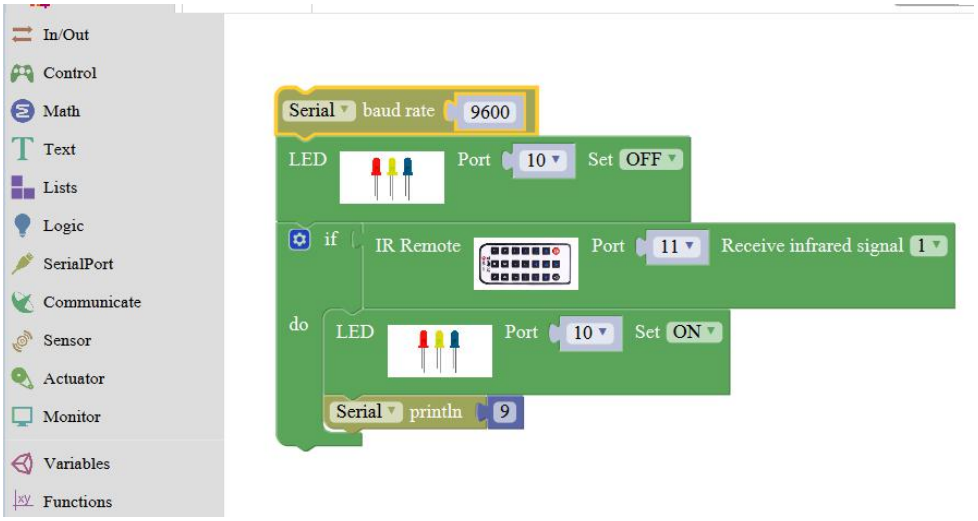
Course 19--IR control

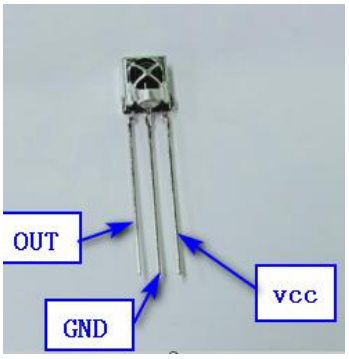
You need to follow the steps below to build blocks.



About the infrared remote control:

The signal from the IR remote controller is a series of binary pulse codes. In order to protect it from other infrared signals during wireless transmission. It is modulated on a specific carrier frequency ,and then transmitted by infrared emission sensor. The infrared receiving device need to filter out other waveform and receive the signal of the specific frequency and restore it to binary pulse code, this process is called demodulation.

The IR receiver sensor converts the optical signal emitted by the infrared emission sensor to a weak electrical signal. These signals are restored to the original encode by various circuits, finally outputs the signal to the control circuit.

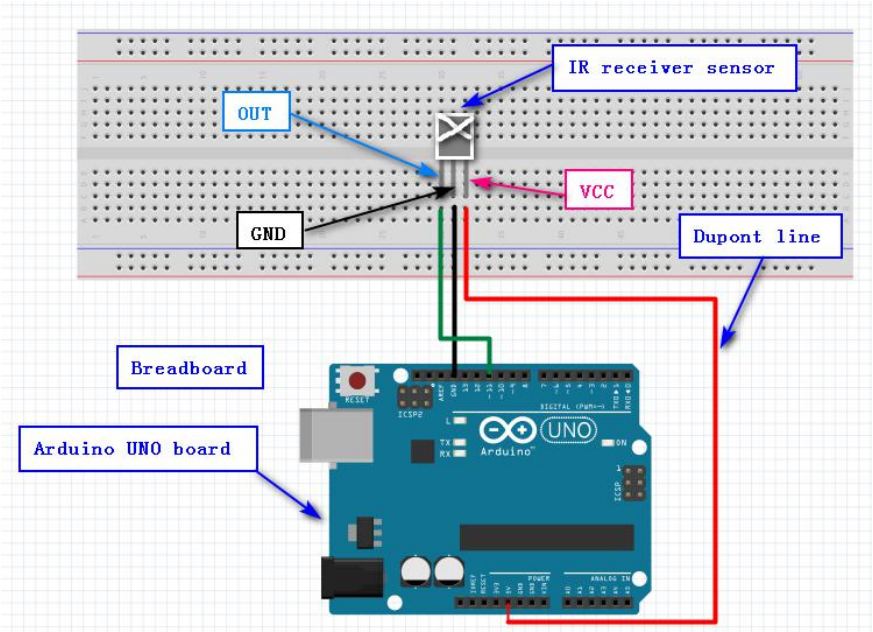


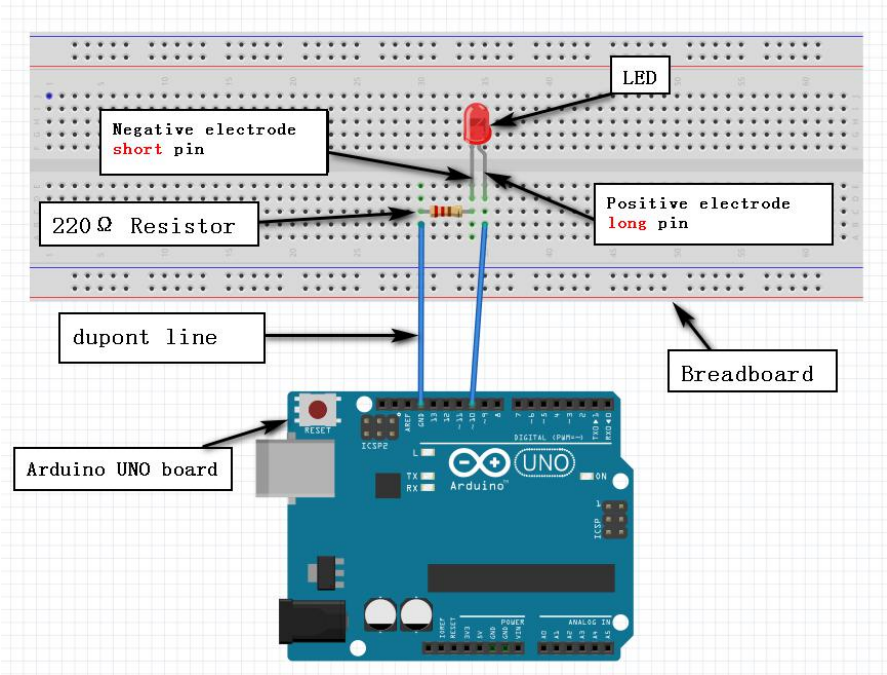
List of components required for the experiment:

Arduino UNO board *1
USB cable *1
IR receiver sensor *1
IR remote controller *1
Breadboard *1
Dupont line *1 bunch

Actual object connection diagram：

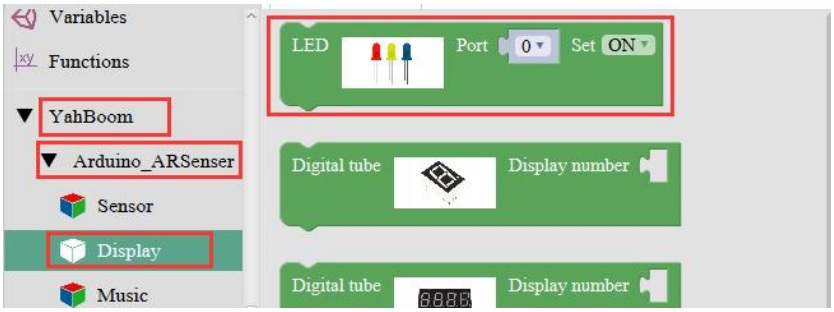
We need to connect the circuit as shown in the figure below.

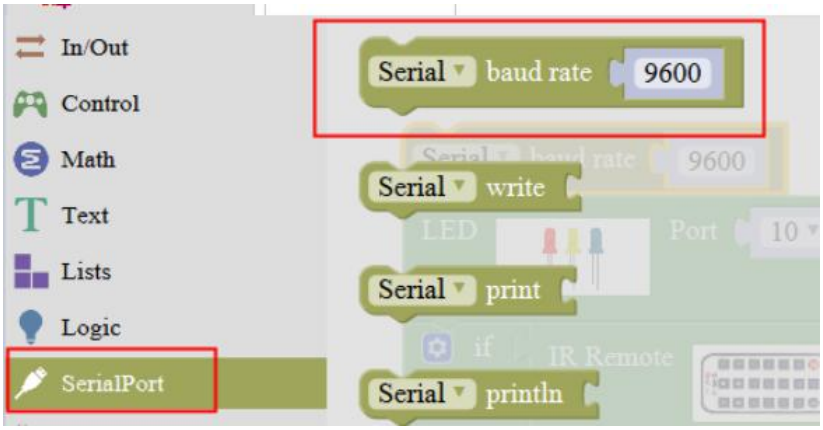


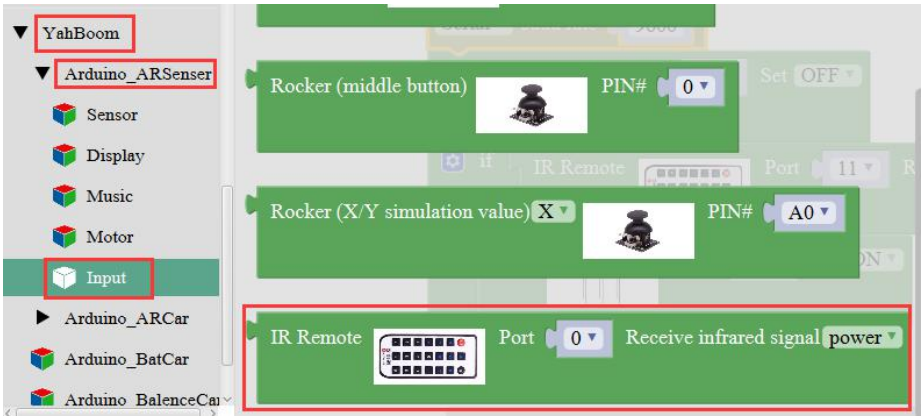


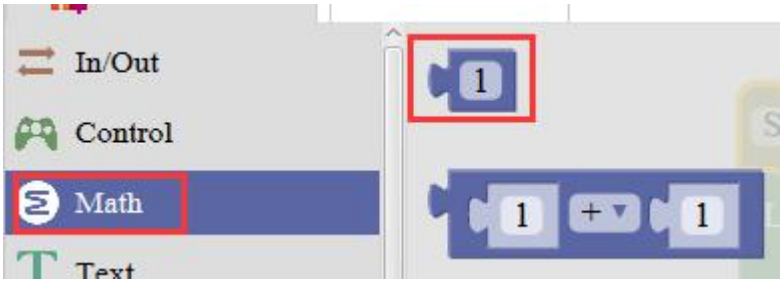
Steps of experiment:

1.You need to choose the building blocks which you need for this experiment, as shown in the figure below.

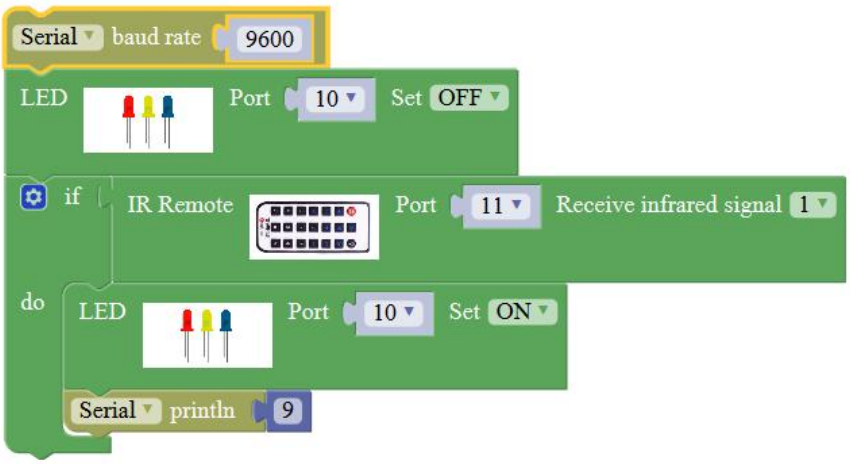






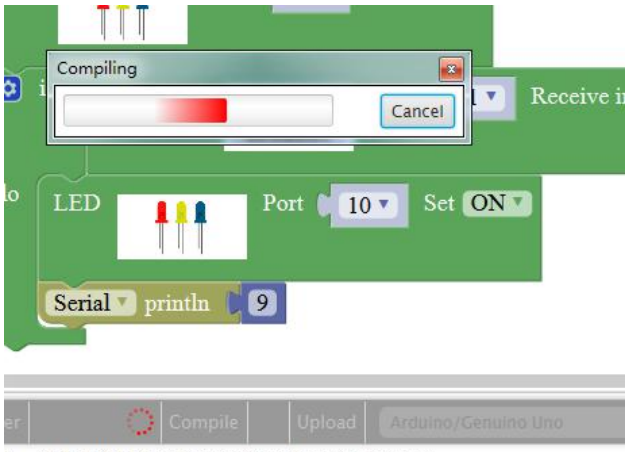


2.You need to combine the selected blocks, as shown in the figure below.

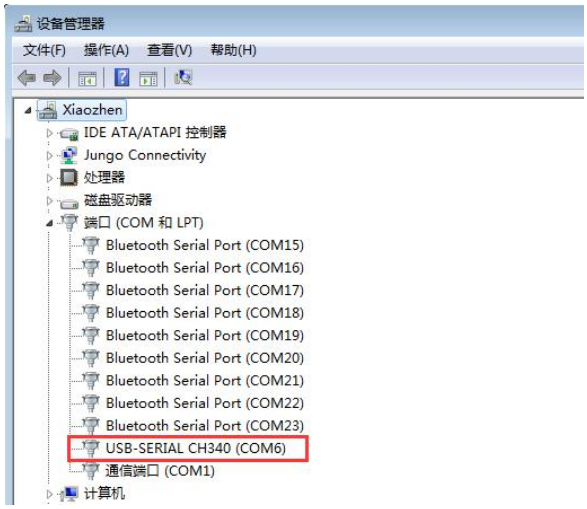


3.You need to you need to click "**Compile**". and wait for the completion of the compiler, the following box will prompt the compiler successfully, if prompt the compile failure is the problem of building block splicing.

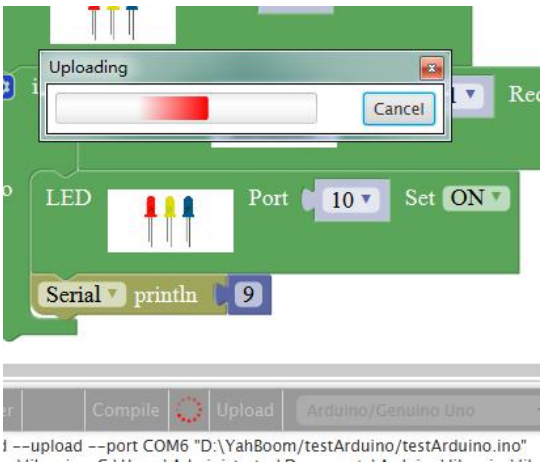
4. After the compilation is completed, the word "**Compile success!**" will appear in the lower left corner, indicating that you have successfully compiled the program.



5. In the menu bar of Mixly, we need to select the port that the serial number displayed by the device manager (for exmaple:COM6) and **Arduino/Genuino Uno.** As shown in the figure below.



6. After the selection is completed, you need to click "**Upload**" to upload the code to the Arduino UNO board. When the word "**Upload success**" appears in the lower left corner, the code has been successfully uploaded to the Arduino UNO board, as shown in the figure below.



7. After the code is uploaded. When we press the butto “1” on the infrared remote controller, we can see that led light up.