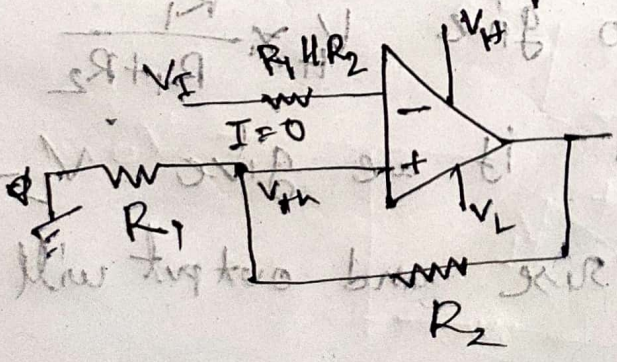
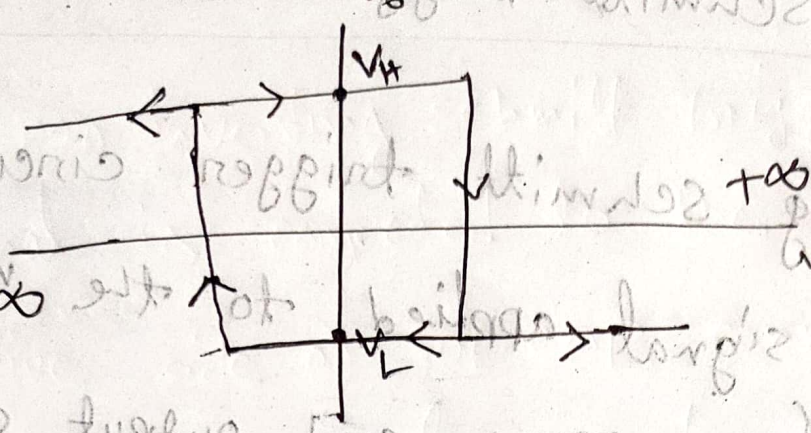
Inverting schmitt trigger basic information:

The inverting schmitt trigger circuit has an input signal applied to the negative terminal of a opamp. and output connected to the op-amp positive terminal and positive terminal conected to the ground and their is no carent flow into the op-amp but output is conected to the positive terminal so there is a carent flow to the amplifer. the voltage is refernence by voltage. (High) V_H and V_L (Low). if $V_{in} > V_{th}$ then output is V_L. and $V_{in} < V_{th}$ then output is V_H.

The circuit:



Graph:



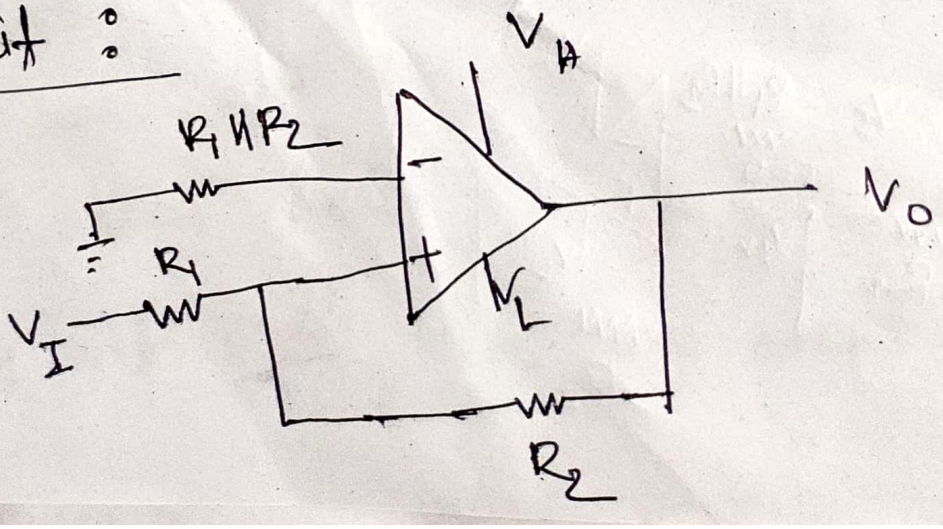
~~if the output voltage is lower than the upper~~

if V_{in} is lower then the V_{th} then the output will V_H (High). when we ~~drop~~ increase the ~~Coarent to then~~ voltage in a sadden point it reach V_{th} or bigger than V_{th} that time it will drop and output will V_L (Low). for down fall we need to give $V_H \times \frac{R_1}{R_1+R_2}$ voltage. on the other hand if we give $V_L \frac{R_1}{R_1+R_2}$ voltage it will rise and output will V_H.

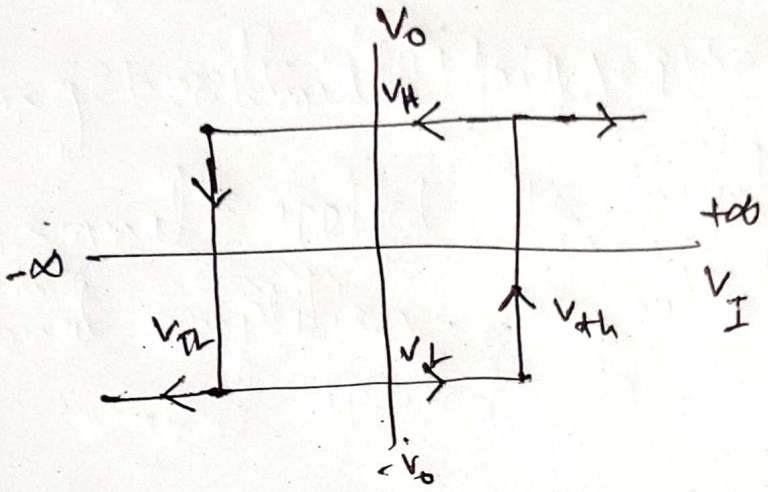
Non-inverting schmitt Trigger basic information

In non-inverting schmitt Trigger the negative terminal is connected to the ground and positive side of op-amp connected to the input (V_I) terminal and also V_{in} connects to the V_o (output). and this amplifier reference by V_H(High) and V_L(Low). if input voltage is higher than the threshold voltage, V_o will be high. on the other hand input voltage is lower than threshold voltage, output will be Low.

Circuit :



Graph:



if the input voltage is extemly low then output (V_o) is Low. when the $V_{th} = -V_L \frac{R_1}{R_2}$ reach to this voltage it will go to the V_H. on the other hand the input voltage is High then output (V_o) is High. and when $V_{th} \geq -V_H \frac{R_1}{R_2}$ reach this voltage it will drop and output will V_L.