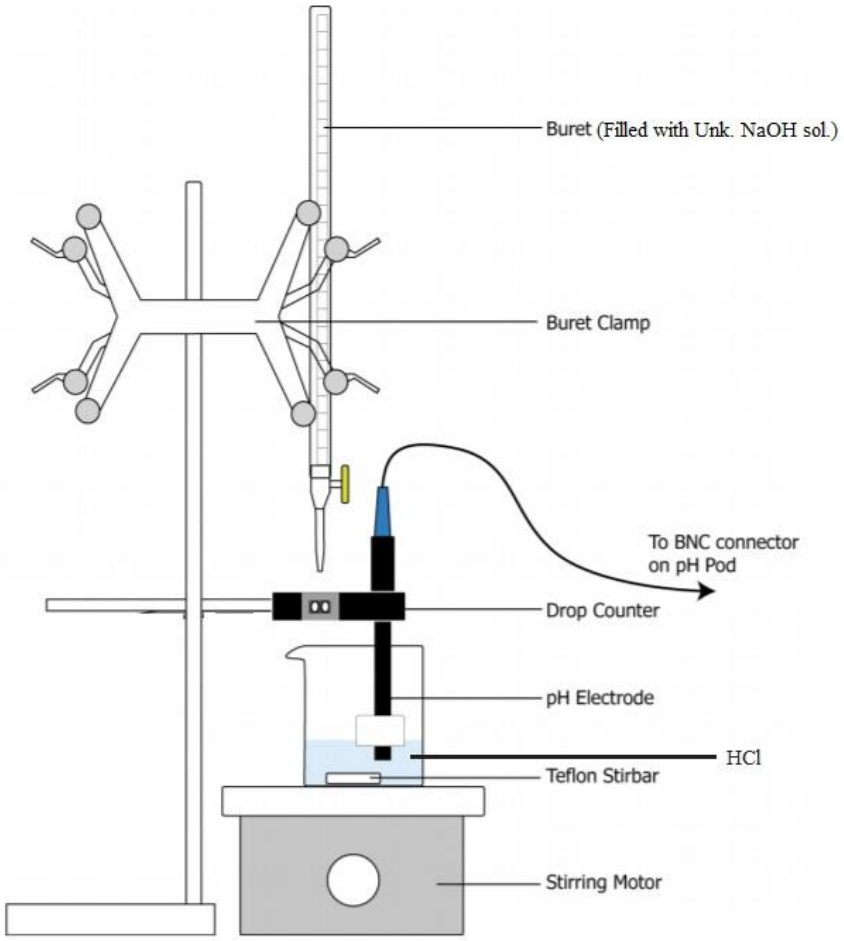
Determination of the Equivalence Point & NaOH Concentration

1- Prepare 50ml Of [0.015M] of (HCl) from **Lab stock** with these information [(Density=1.17g/ml) & (Purity=37% w/w)].

2- Pour [1] in suitable beaker.

3- Fill the burette with (25ml) of given (NaOH) solution.

4- Construct the system as shown in the photo below:



5- Merge the operated pH electrode in the (HCl) beaker and record the pH Value.

6- Drop (1 ml) of (NaOH) from the burette and record the pH Value-as instructed-.

7- Repeat step [7] till you pass the End Point by 3-4ml(1ml each time)..

8- Find the Equivalence & End Points and calculate the (NaOH) concentration.

Results:

No	NaOH Added Volume(ml)	pH Value
1	0	$pH_1<7$
2	1	pH_2
3	2	pH_3
4	3	pH_4
5	4	pH_5
6	5	pH_6
7	6	pH_7
8	7	pH_8
9	8	pH_9
…	…	$pH_{…}$
…	…	$pH_{…}$
..n	n	$pH_n>7$

Titration Graph: