

## 1. Preparation

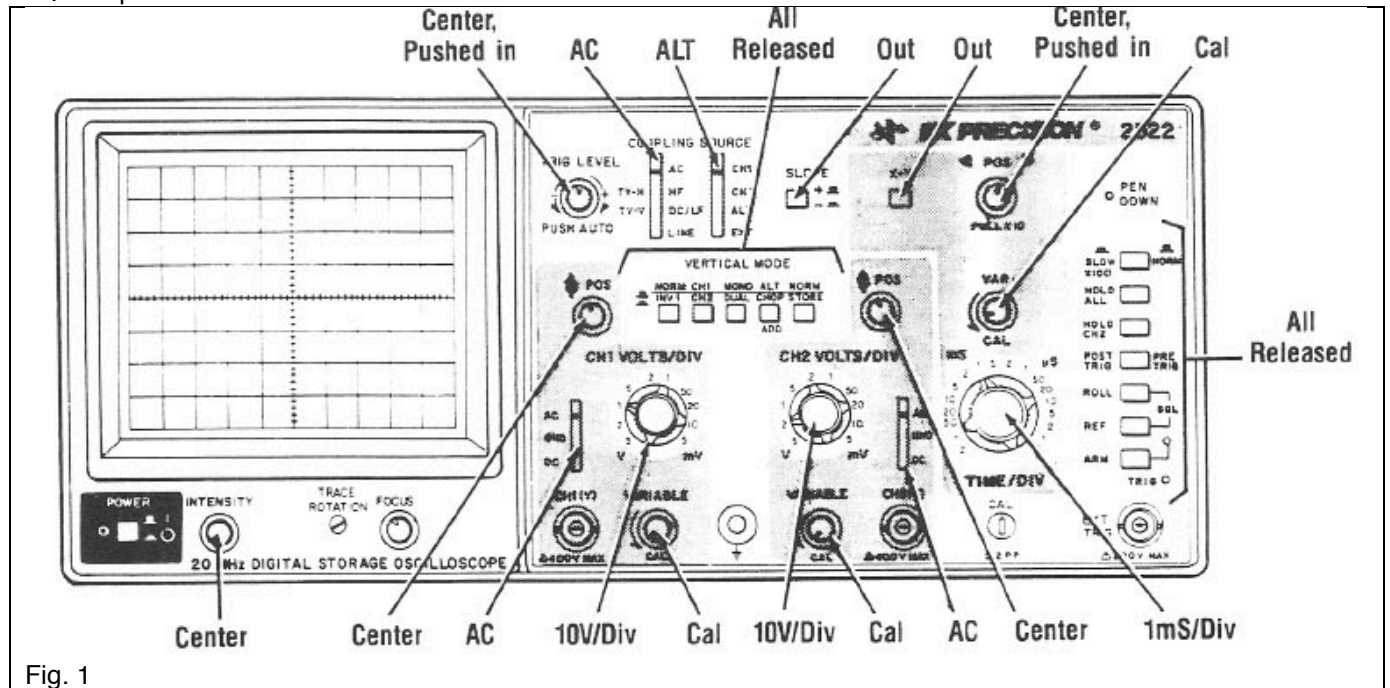


Fig. 1

## 2. Experiments

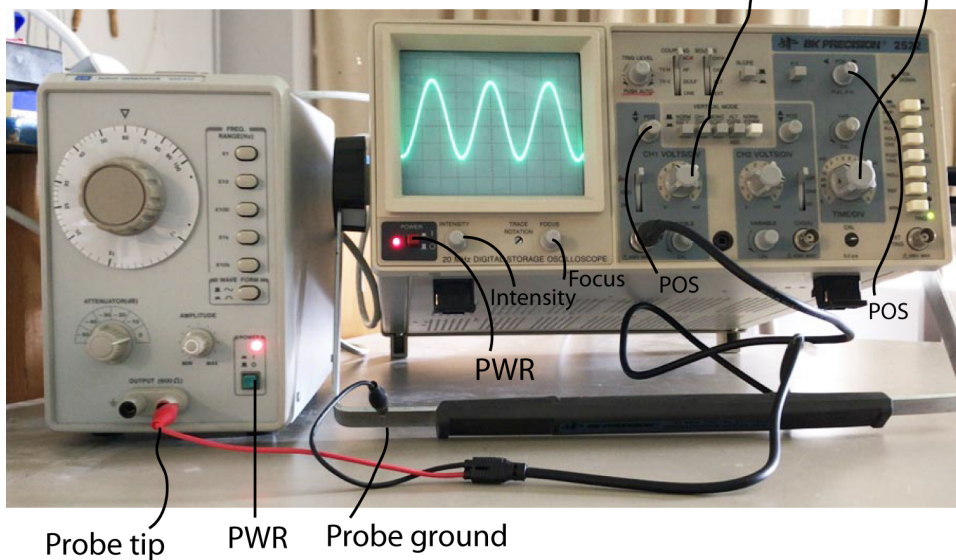
## 1) Alternated Current

Audio Generator

Oscilloscope

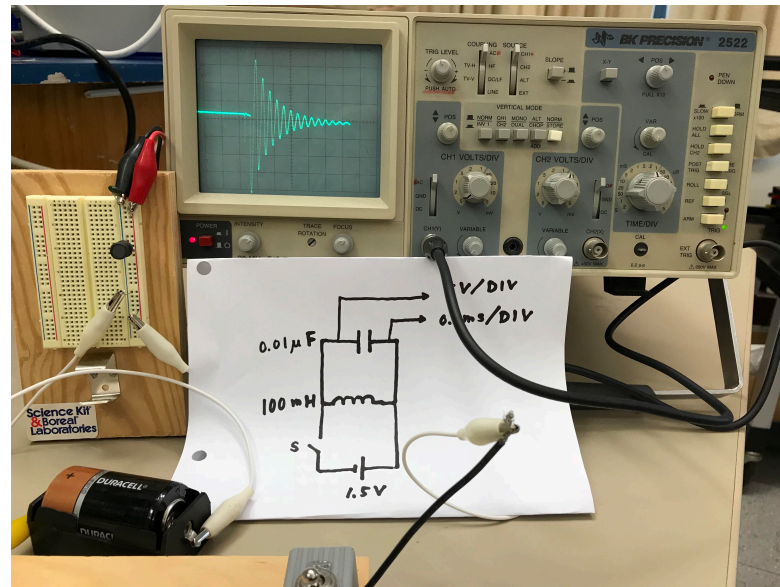
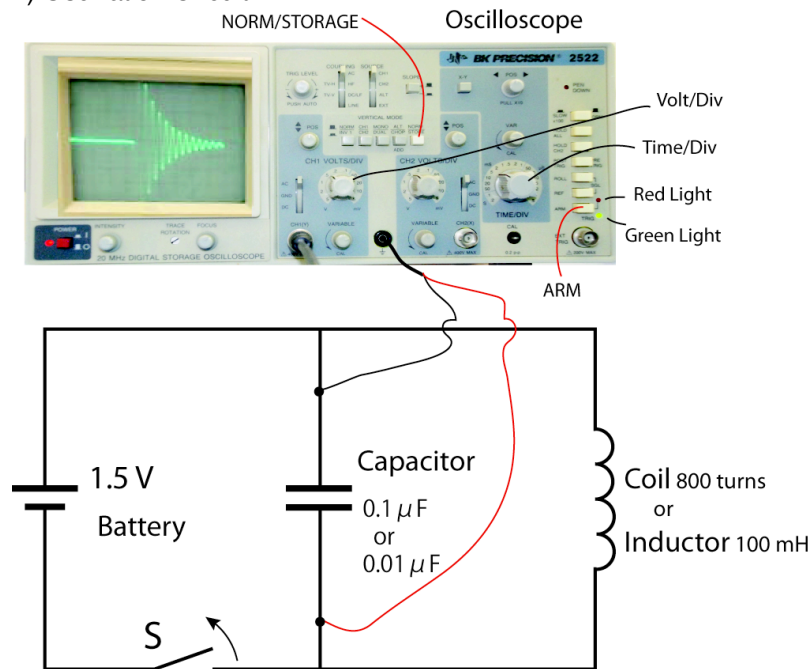
Voltage/Div

Time/Div



- (1) Oscilloscope, Audio Generator –PWR on
- (2) Select frequency , (ex. 120 Hz)
- (3) Adjust Intensity, Focus, POSx2 Voltage/DIV, Time/Div
- (4) Measure Voltage and Period
- (5) Calculate Frequency

## 2) Oscillation Circuit



(1) Connect on Breadboard  
Battery–Inductor–Capacitor–Switch

(2) Switch ON (Charge Battery)

(3) Push  
NORM/STORAGE

(4) Adjust  
Volt/Div  $\sim 5 \text{ V/DIV}$   
Time/Div  $\sim 0.5 \text{ ms/DIV}$   
(Try and Error)

(5) Push ARM  
(Blue  $\rightarrow$  Red light)

(6) Switch OFF  
 $\rightarrow$  Pattern on Screen

(7) Repeat (2)  $\sim$  (6)

\* Measure  
Period, Frequency

\* Comparison with Theory

$$f = \frac{1}{2\pi\sqrt{LC}}$$



## 3) Falling a Magnet through a Coil

