

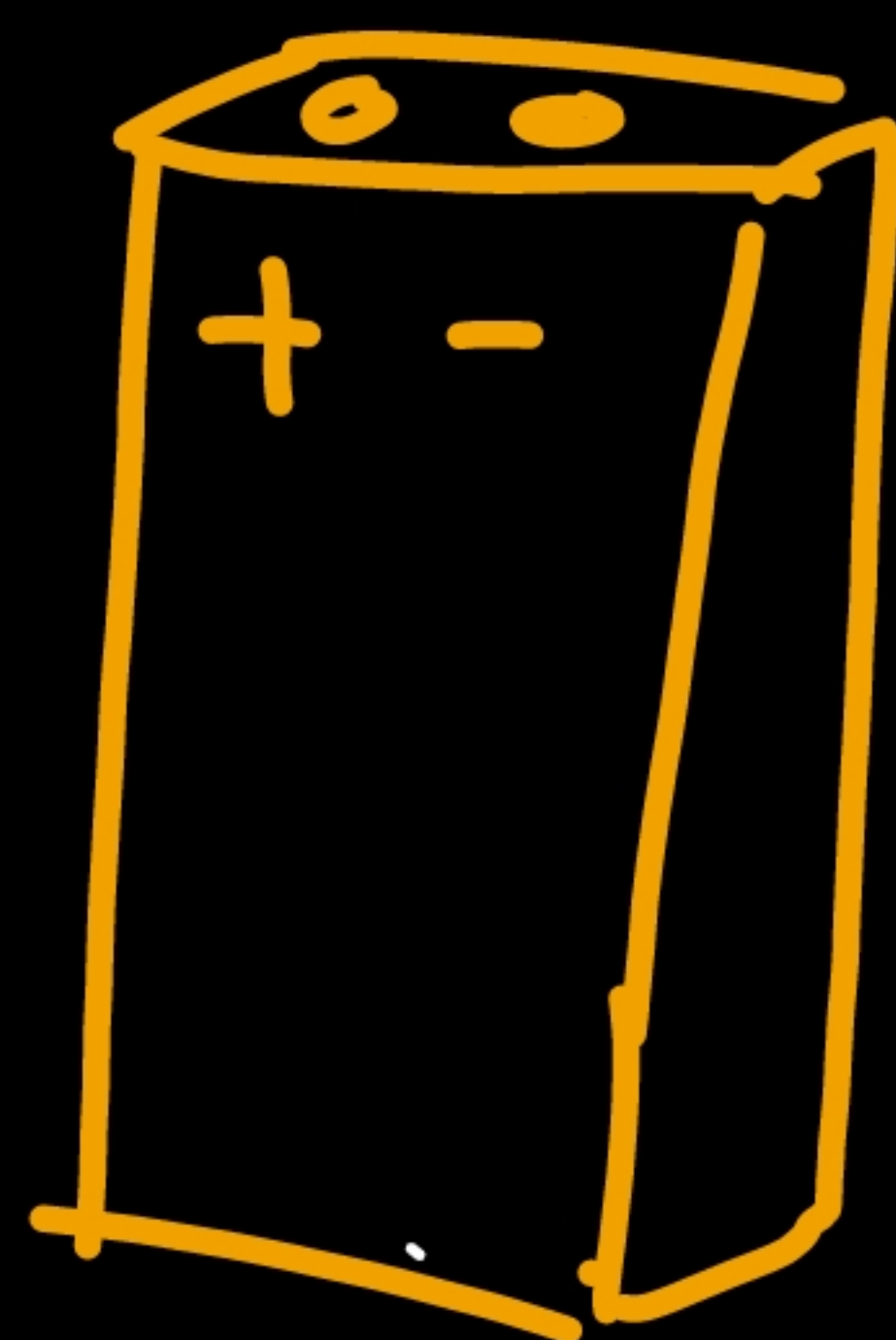
Μηδζαπία

1,5 volt

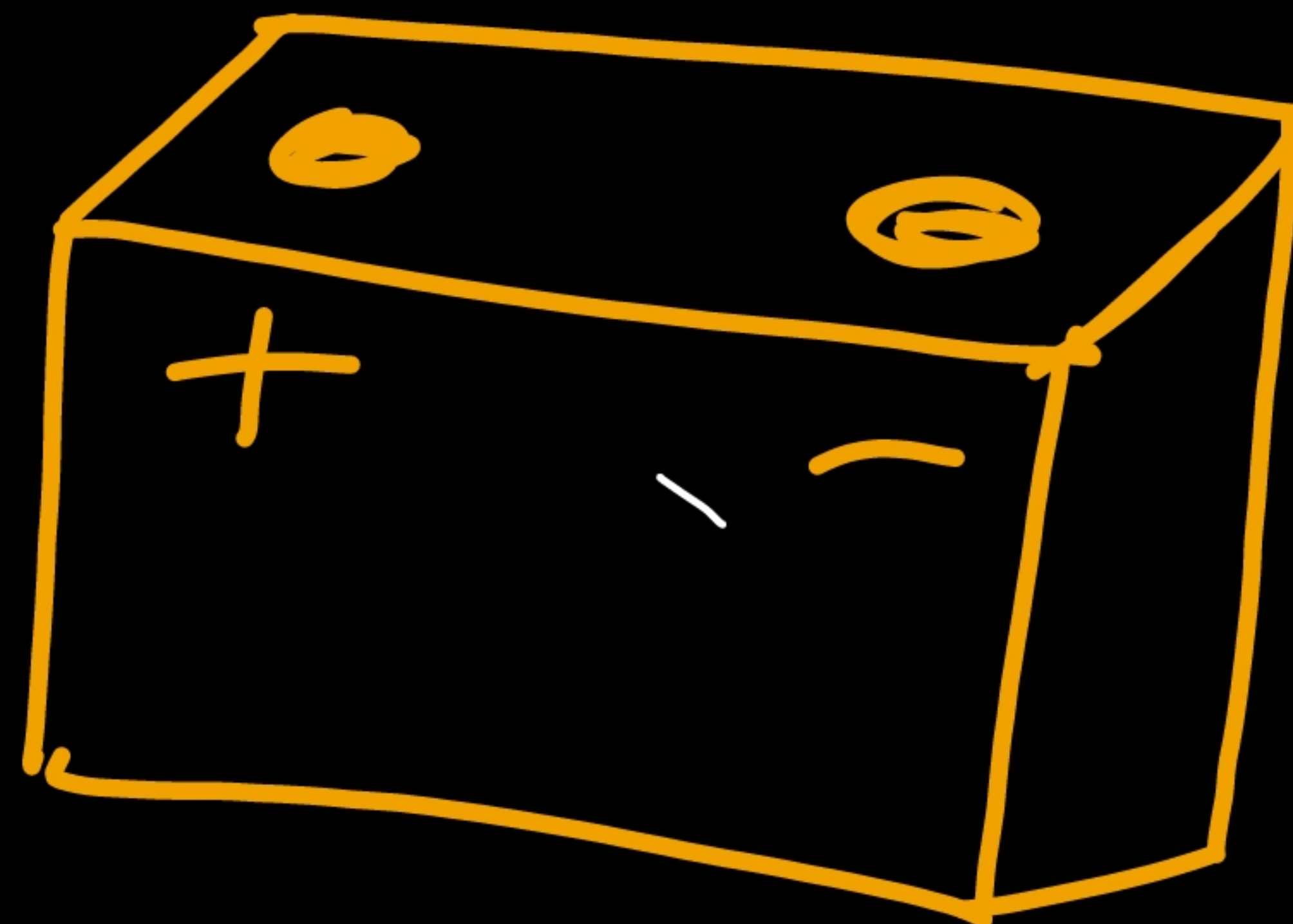


Τάση

9v



12v



Χημική

ηλεκτρική

θέρμαντα

κίνηση

Πηγές ηλεκτρικής Ενέργειας

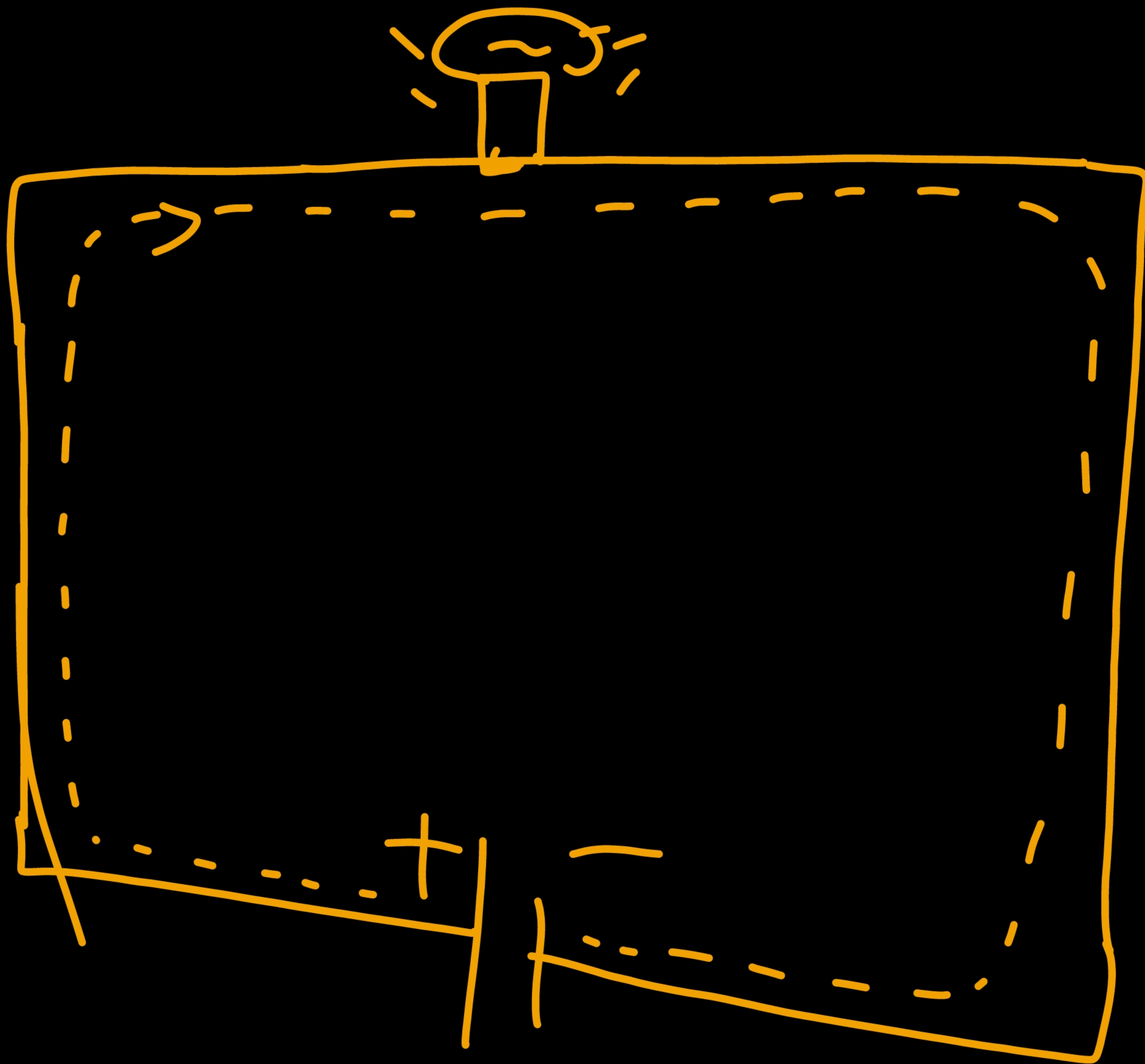
• Μπαταρίες $\rightarrow 1,5V - 9V - 12V$

Φωτοβολταϊκά $\rightarrow 12V \sim 48V$

• ΓΕΝΝΗΤΡΙΕΣ $\rightarrow 220V$

Συνεχής
τάση
DC

Εναλλασσόμενη
τάση AC



Τις ον $\rightarrow$ Volt
Ρεϊτ $\rightarrow$ Ampere

Συνεχής τάση. $\frac{+}{-} F$



D.C.

Σταθερή πολικότητα

Εναλλακτικότητα —  —

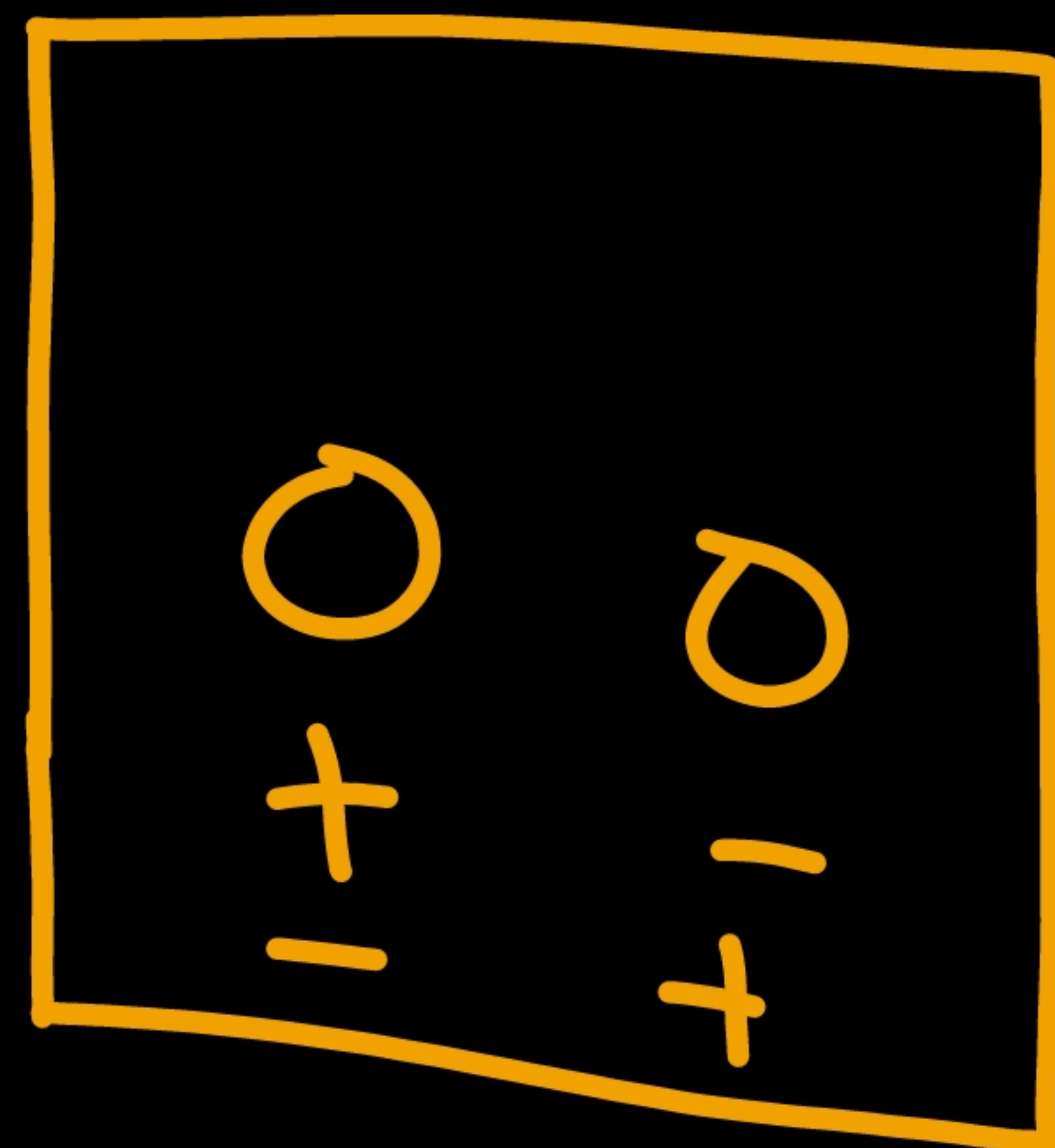
Τάση

A.C.

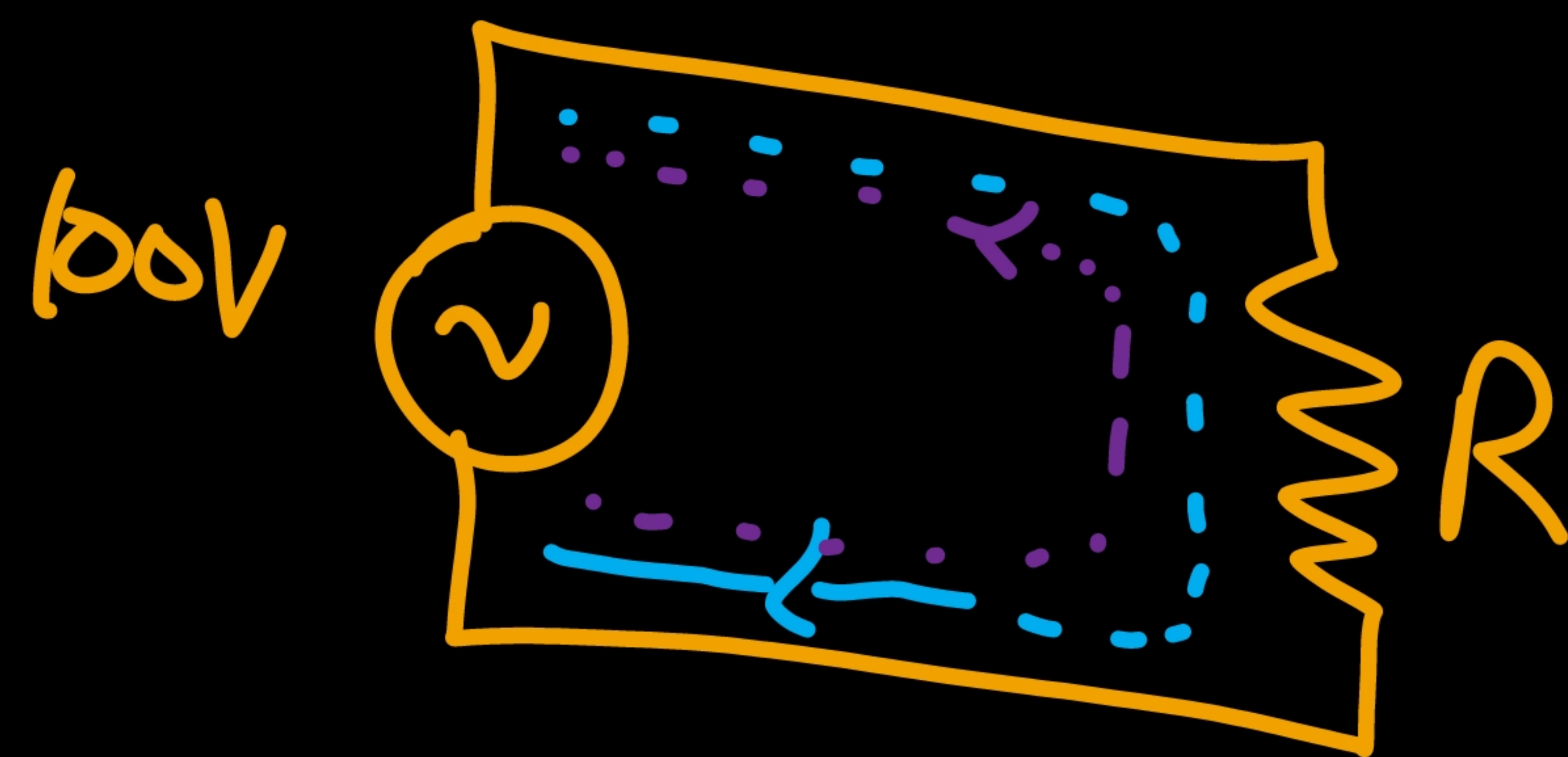
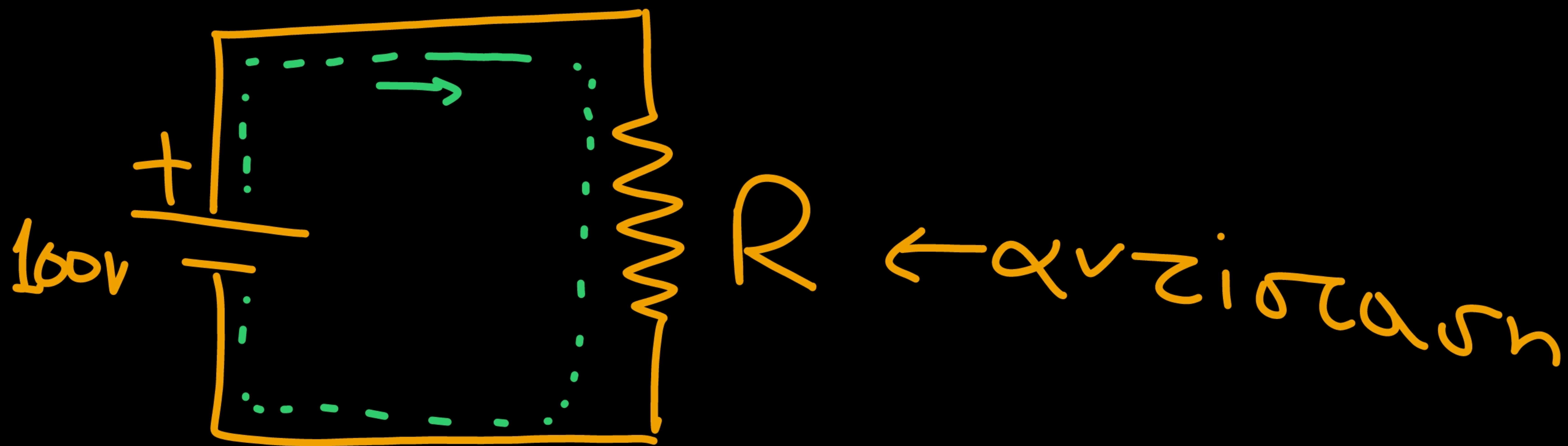


Ποσικότητα που αλληλεπιδράει

A. C.

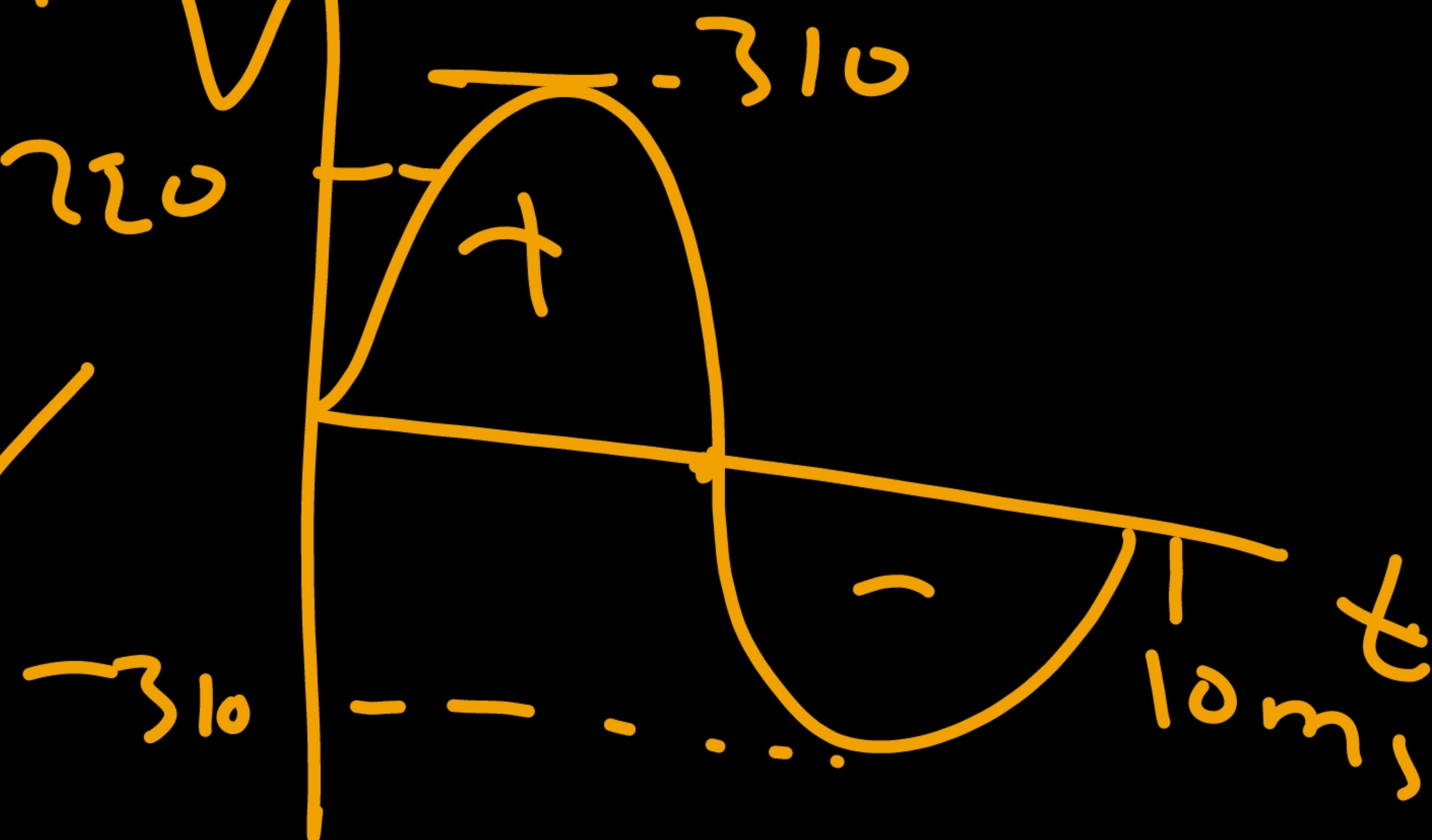


→ Αλλάζει πολιτικές
50 φορές το δευτερόλεπτο



$\Delta E_H V$

A.C. $\rightarrow$ 220 V

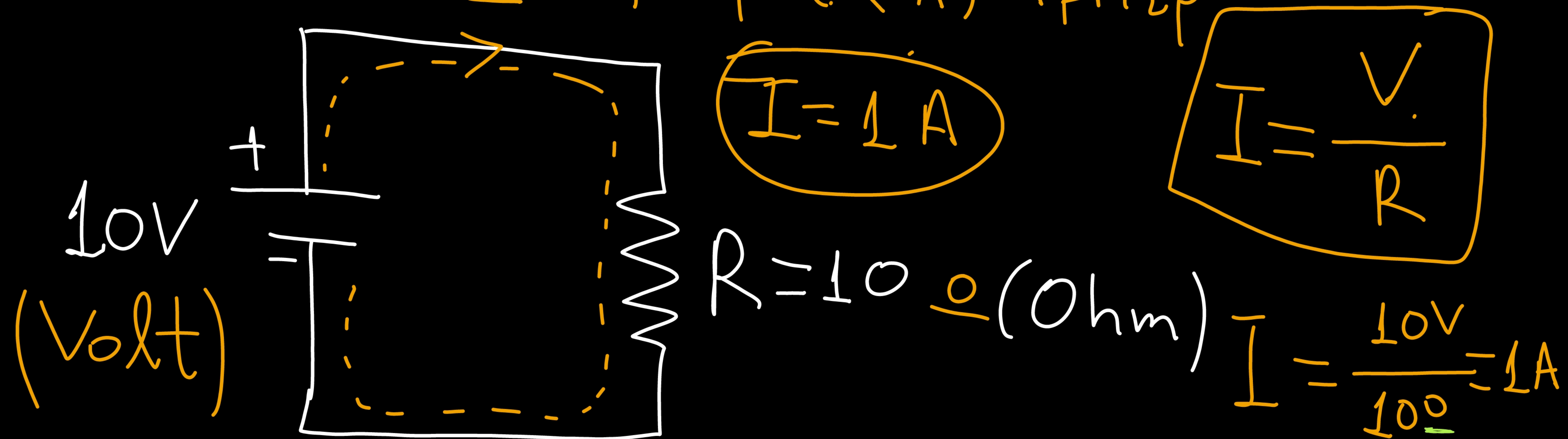


Agwfois → καλῶςία
(χαλκός)

Μονωτῆς → Πλαστικός - πορσελάνη

• Ημιαγωγοί → Πυρίτιο (Ηλεκτρονικά)

$I \rightarrow$ ρεύμα (A) Αμπέρ

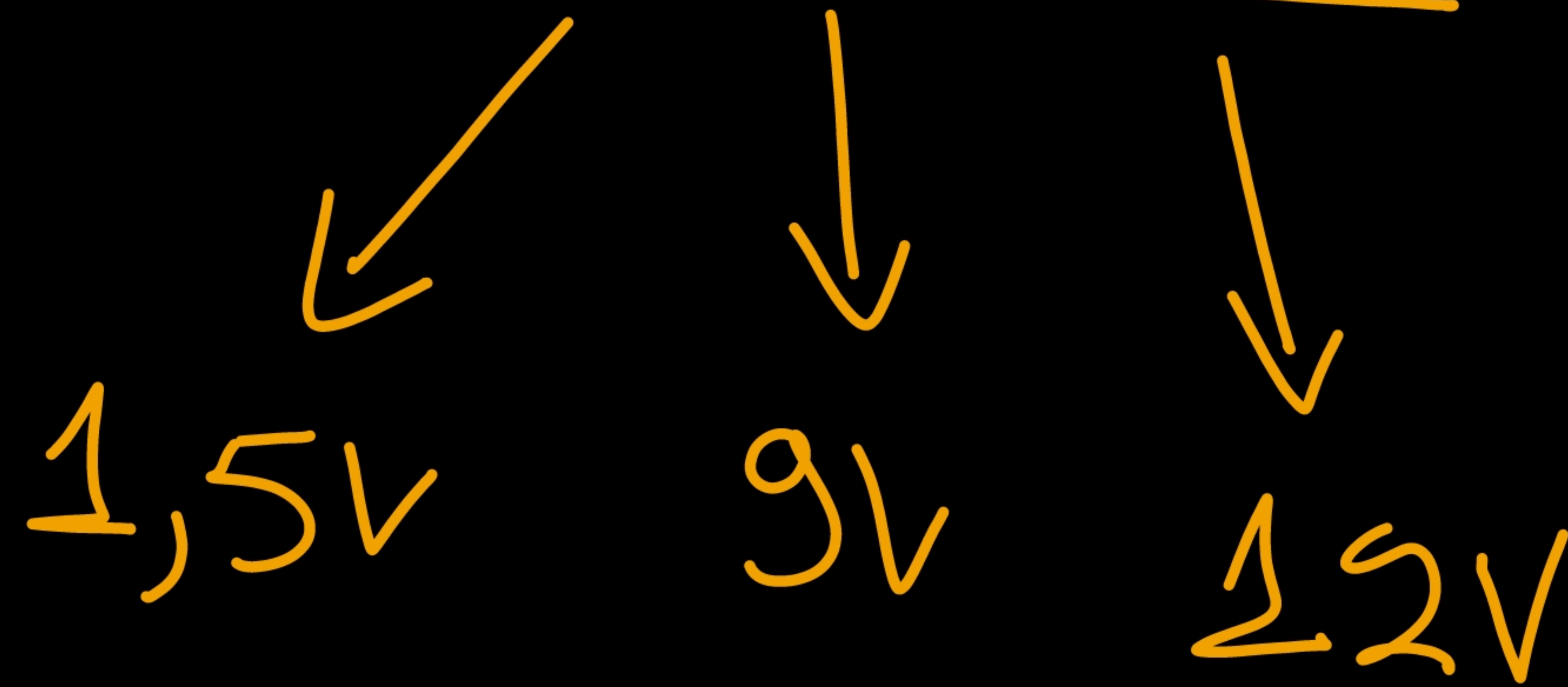


- Μεγάλη τάση $\rightarrow$ πολλή Volt $\rightarrow$ πολλή Αμπέρ
- Μεγάλη Αντίσταση $\rightarrow$ πολλή Ω $\rightarrow$ λίγα Αμπέρ

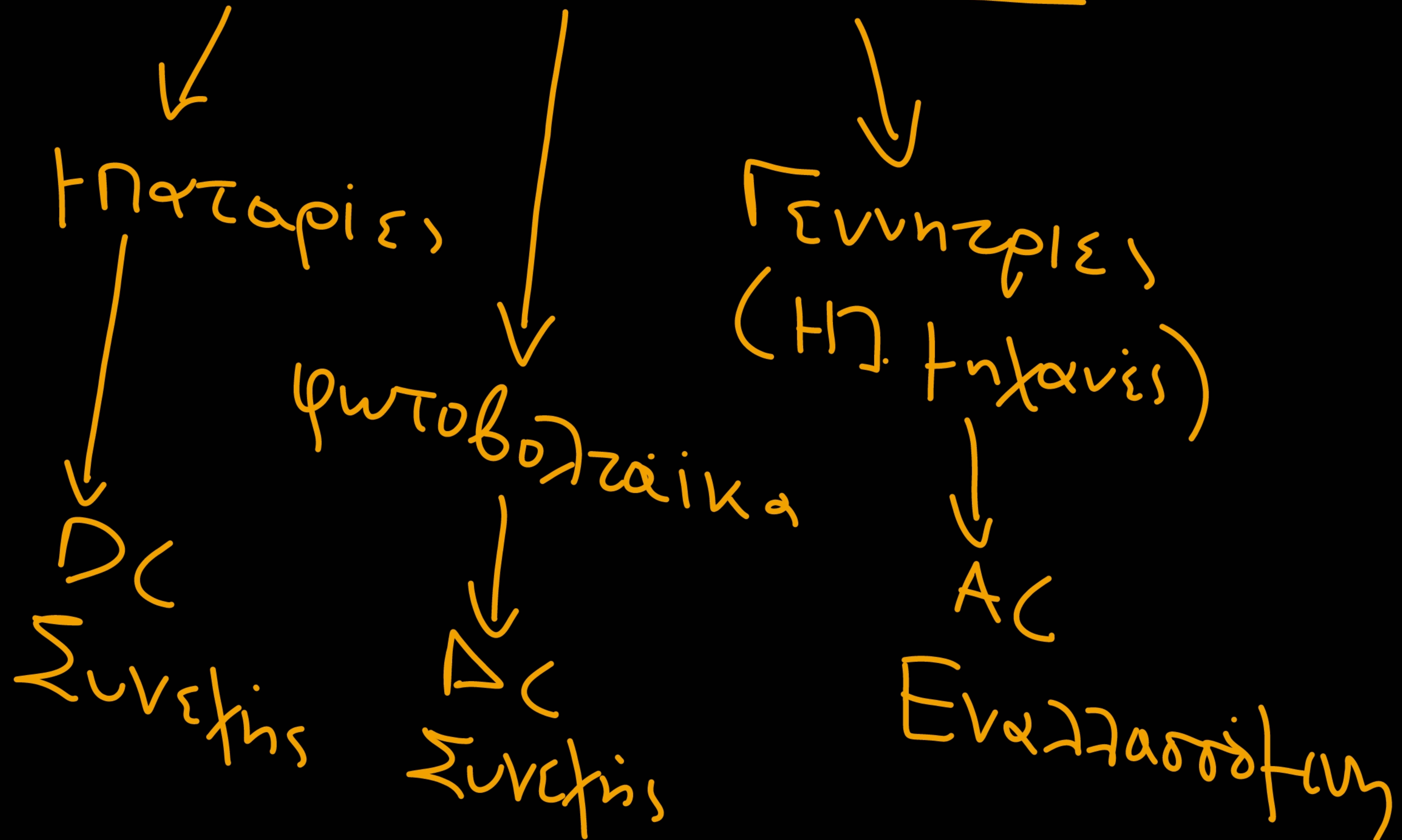
$$P_{\text{εύf}} \propto \frac{I_{\text{αση}} (\text{Volt})}{A_{\text{vζισταση}} (\Omega)}$$

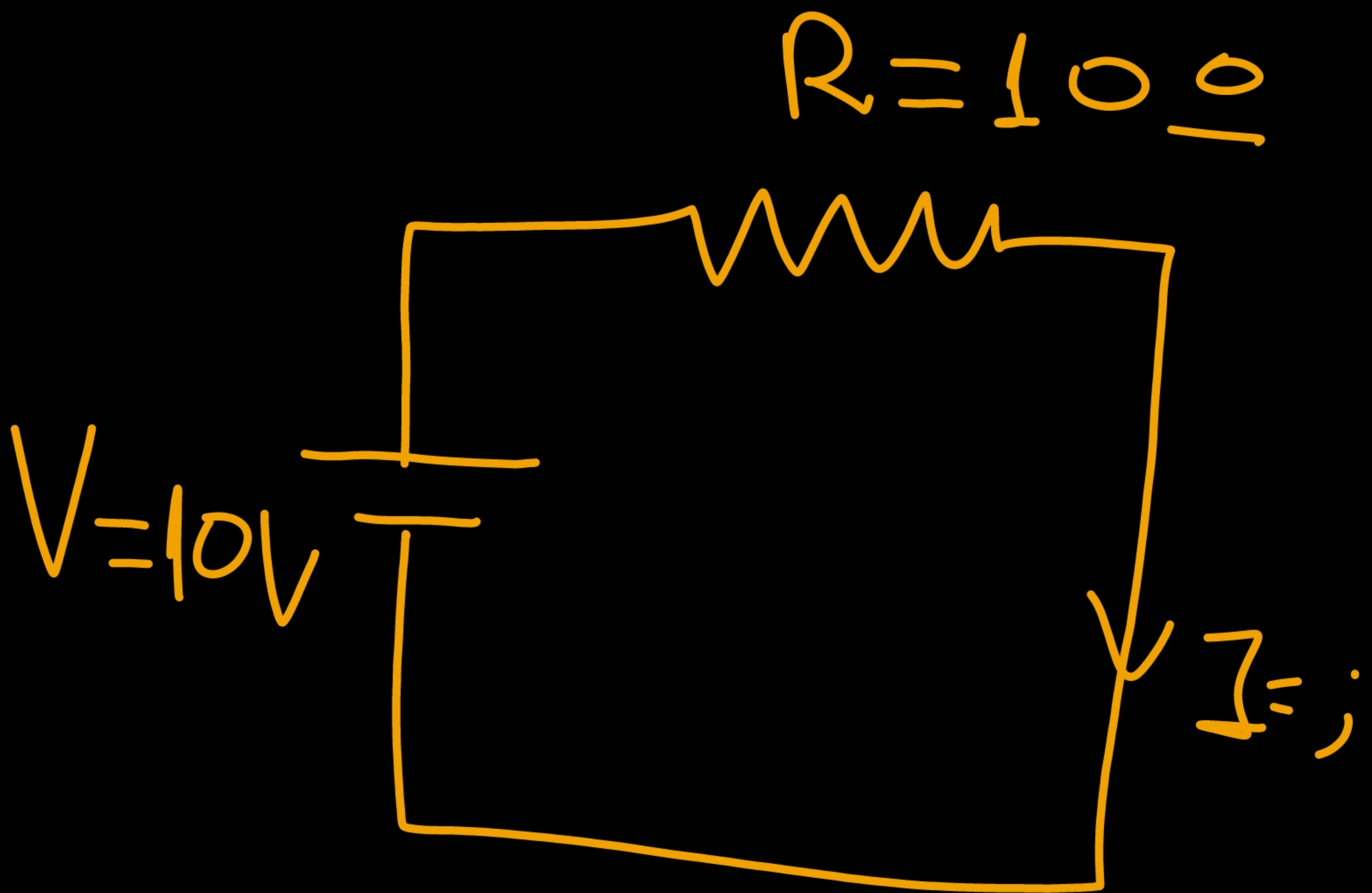
$A_{\text{τηρ}}$

Μπαταρίες



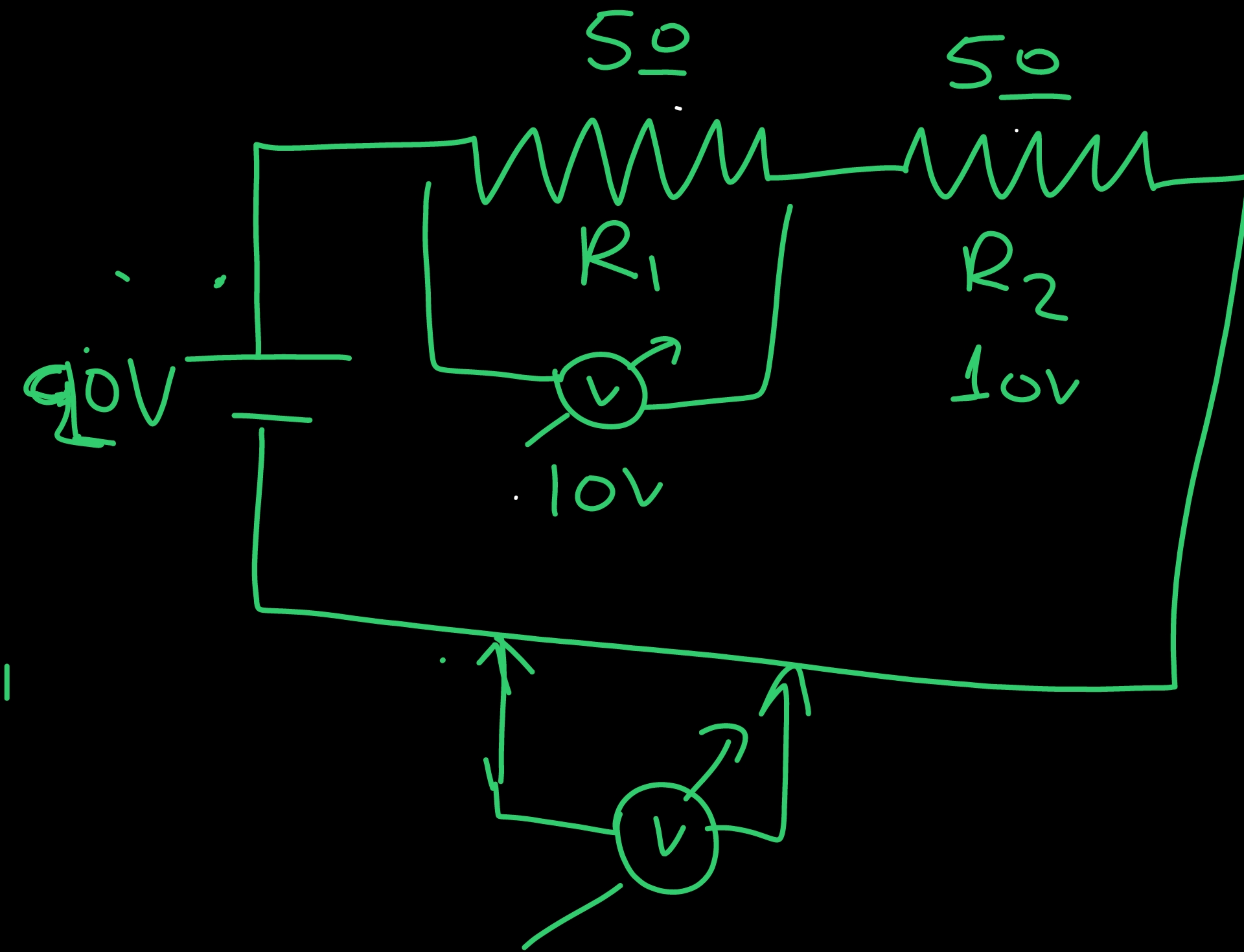
Ηλεκτρική Ενέργεια





$R \rightarrow$ Αντίσταση $\rightarrow \underline{\underline{\Omega}}$
 $V \rightarrow$ Τάση $\rightarrow \underline{\text{Volt}}$
 $I \rightarrow$ Ρεύμα $\rightarrow \underline{\text{Ampere}}$

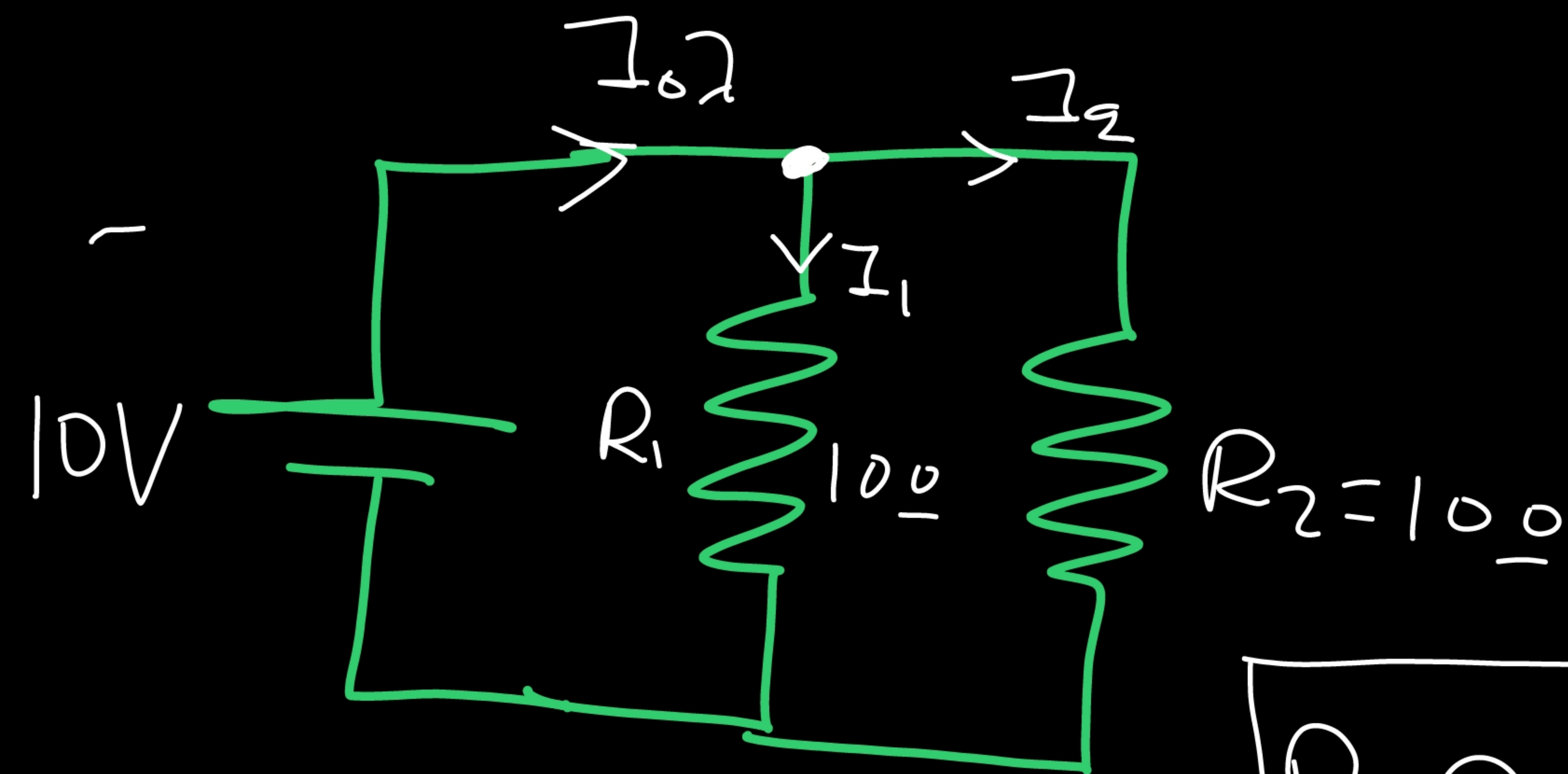
$$I = \frac{V}{R} = \frac{10V}{10V} = 1A$$



$$R_{02} = R_1 + R_2$$

$$R_{02} = 50 + 50 = 100$$

$$I = \frac{V}{R_{02}} = \frac{10V}{100} = 1A$$



$$I_1 = \frac{V_{R_1}}{R_1} = \frac{10V}{10\Omega} = 1A$$

$$I_2 = \frac{V_{R_2}}{R_2} = \frac{10V}{10\Omega} = 1A$$

$$V_{R_1} = 10V$$

$$V_{R_2} = 10V$$

$$R_{01} = \frac{R_1 \cdot R_2}{R_1 + R_2} = \frac{10 \cdot 10}{10 + 10} = \frac{100}{20} = 5\Omega$$

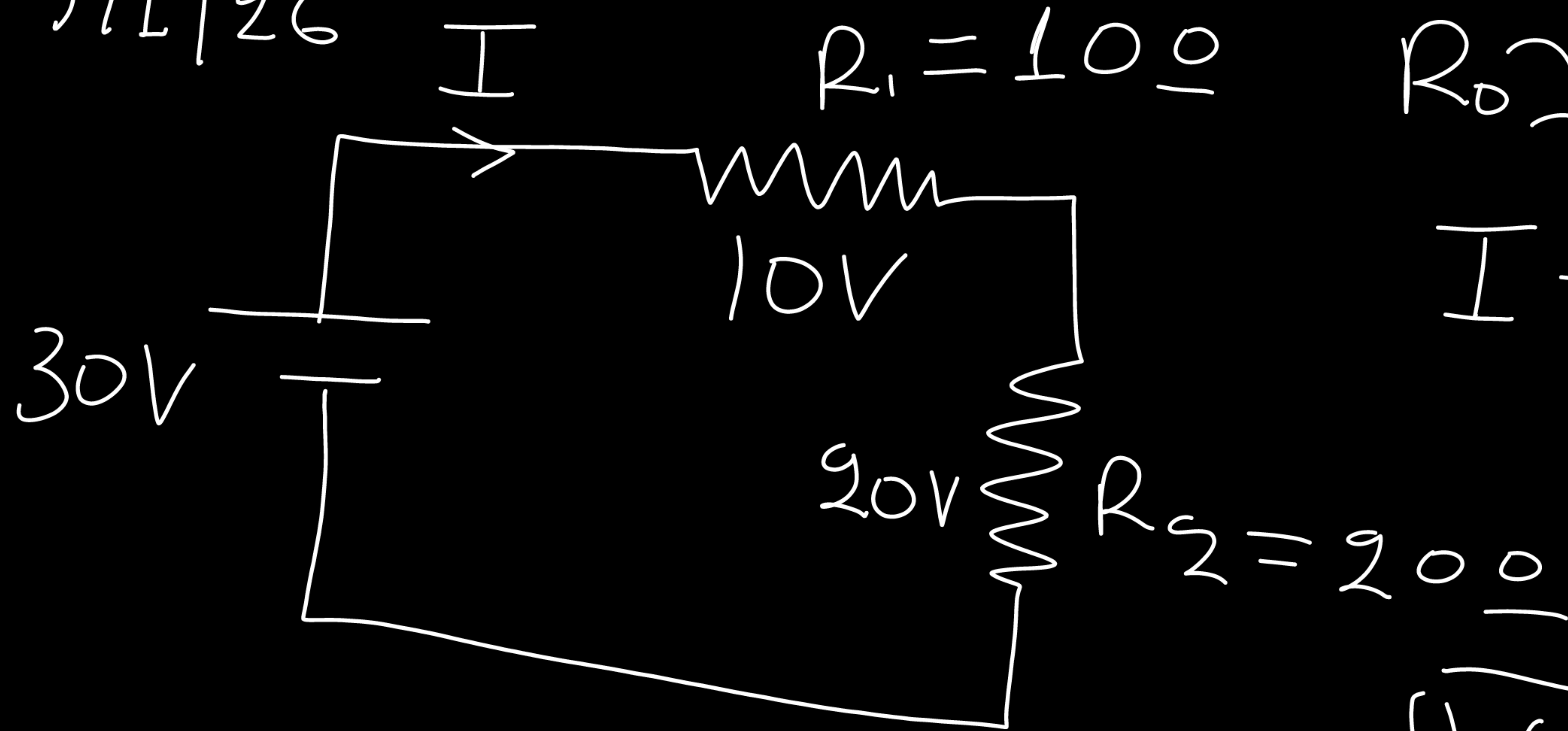
$$R = 1500 \underline{\Omega}$$

$$I = \frac{V}{R}$$

$$I = 30 \text{ mA}$$

$$V = I \cdot R = 30 \cdot 10^{-3} \cdot 1500 = 45 \text{ V}$$

9/1/26



$$R_0 = R_1 + R_2 = 10\Omega + 20\Omega = 30\Omega$$

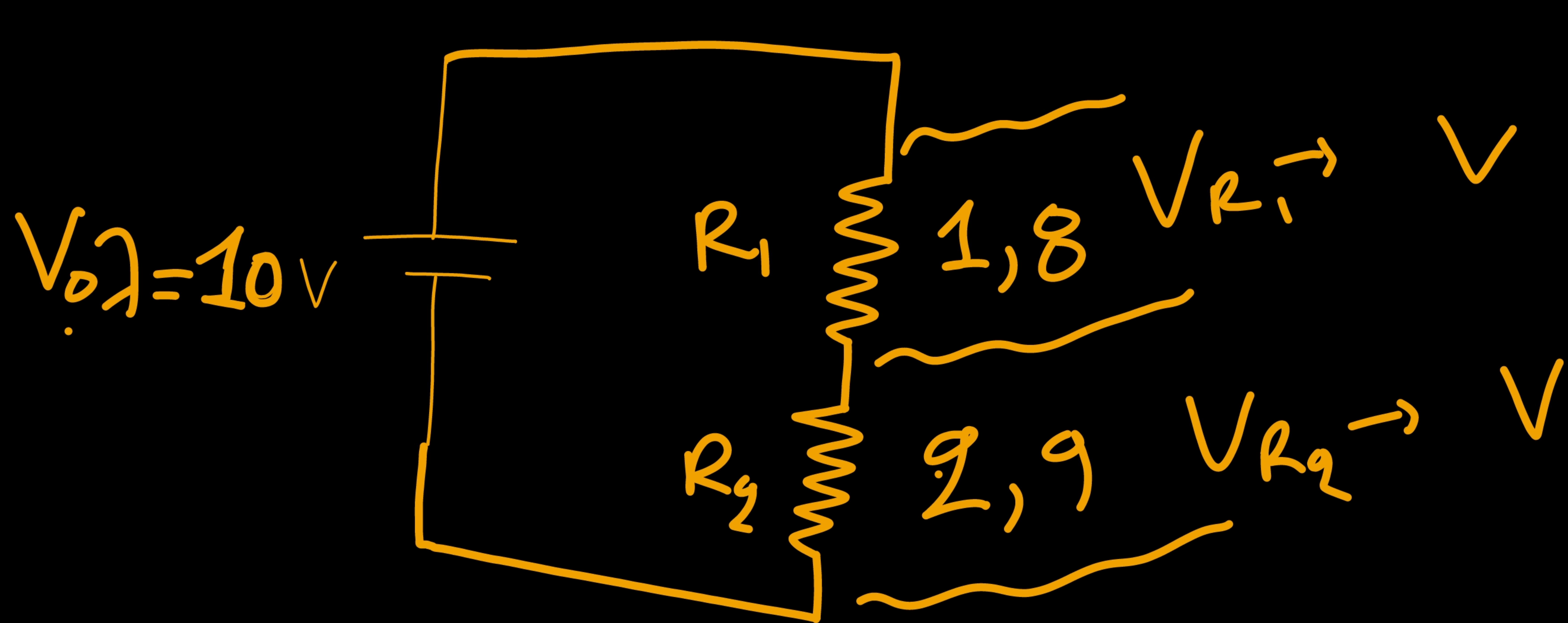
$$I = \frac{V}{R_0} = \frac{30V}{30\Omega} = 1A$$

$$I = \frac{V}{R}$$

$$V_{R_1} = I \cdot R_1 = 1A \cdot 10\Omega = 10V$$

$$V_{R_2} = 30V - 10V = 20V$$

Διαρρέτις Τάσης



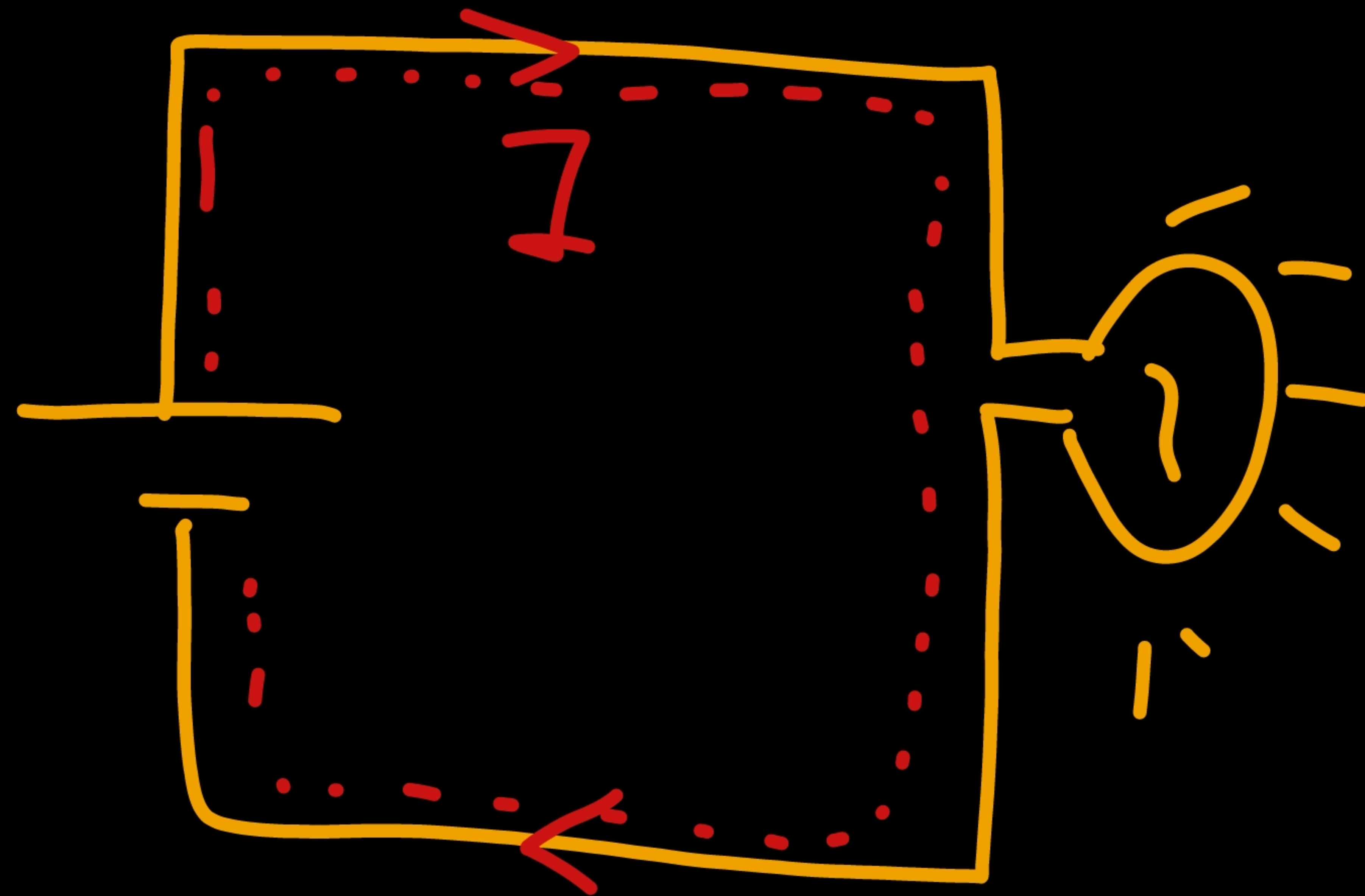
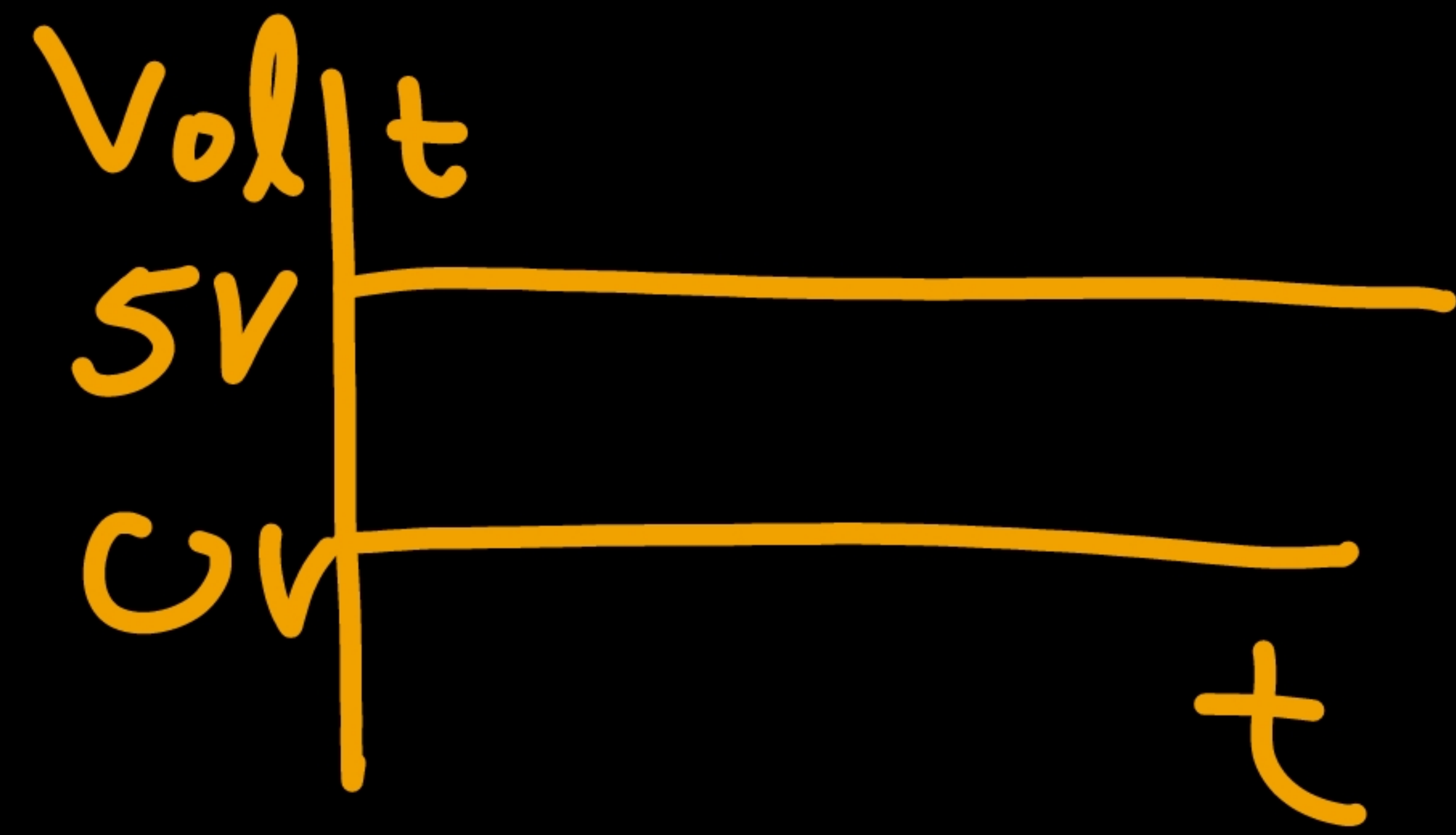
$$I = \frac{V}{R} = 1A$$

$$V = I \cdot R$$

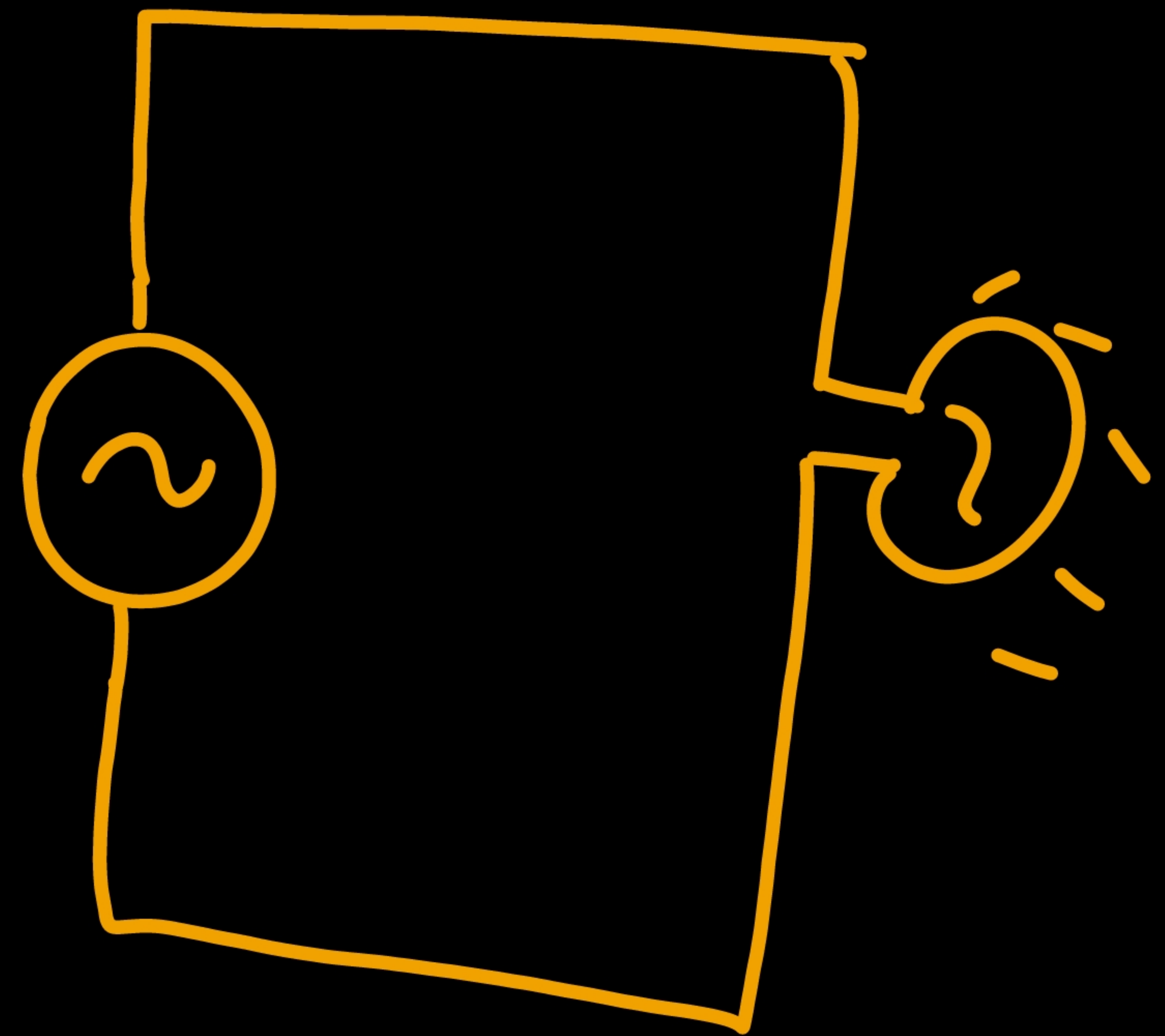
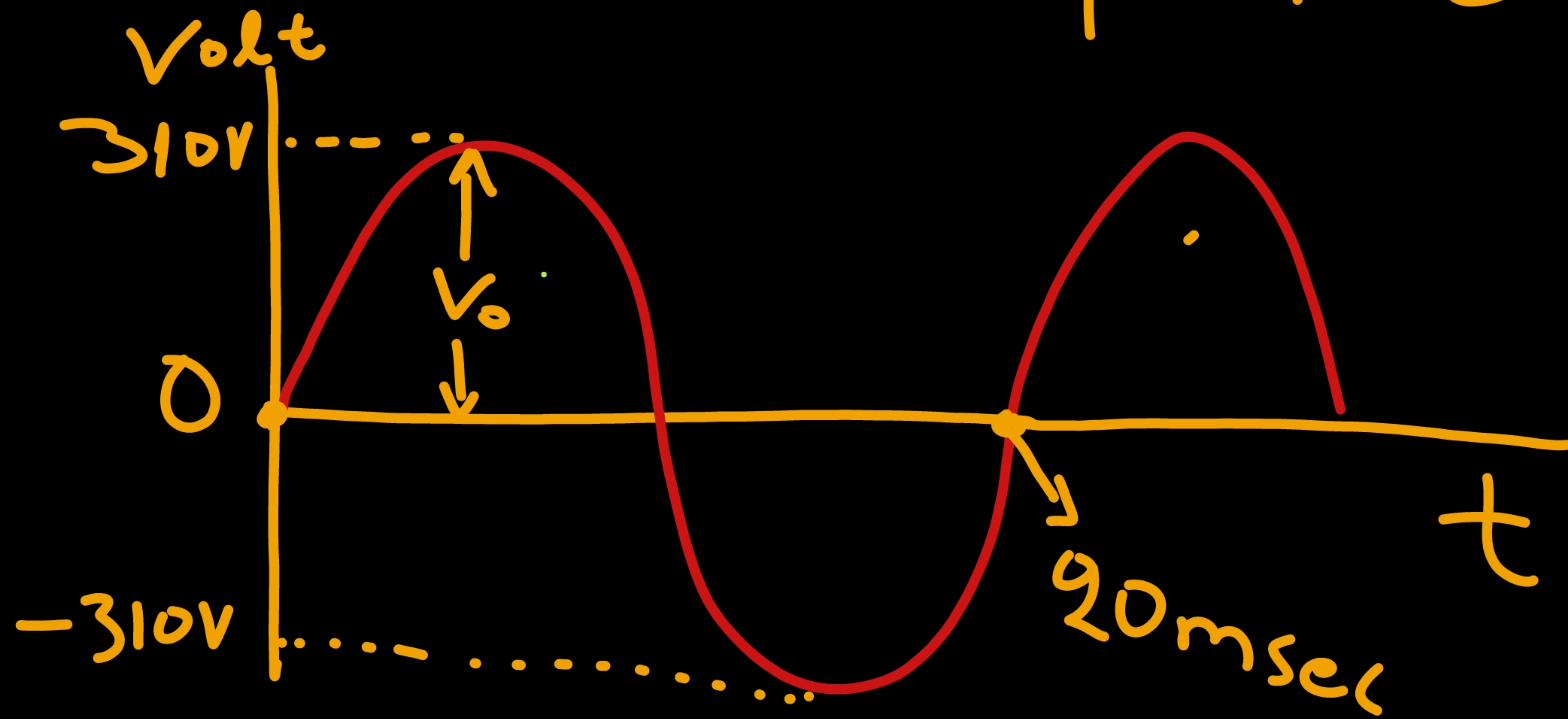
$$V_{R1} = \frac{V_{ολ} \cdot R_1}{R_1 + R_2}$$

$$V_{R2} = \frac{V_{ολ} \cdot R_2}{R_1 + R_2}$$

Συνεχνητά ρεύματα - D.C.

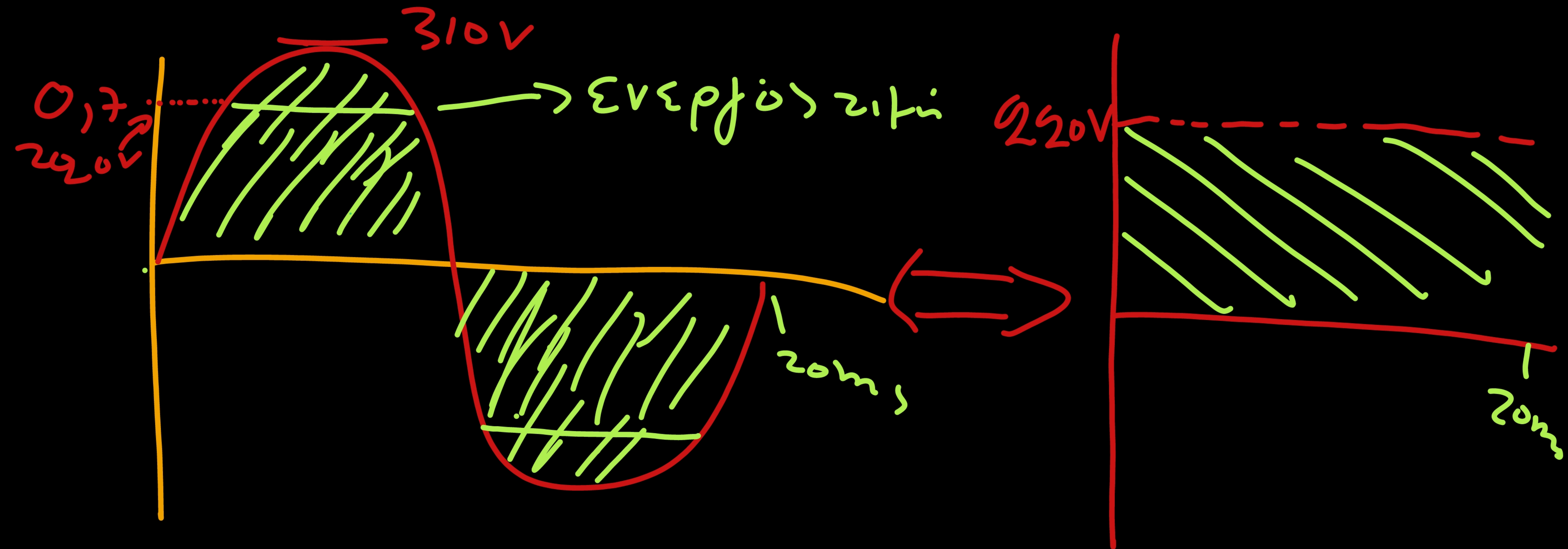


Εναλλασσόμενη τάση - A.C.

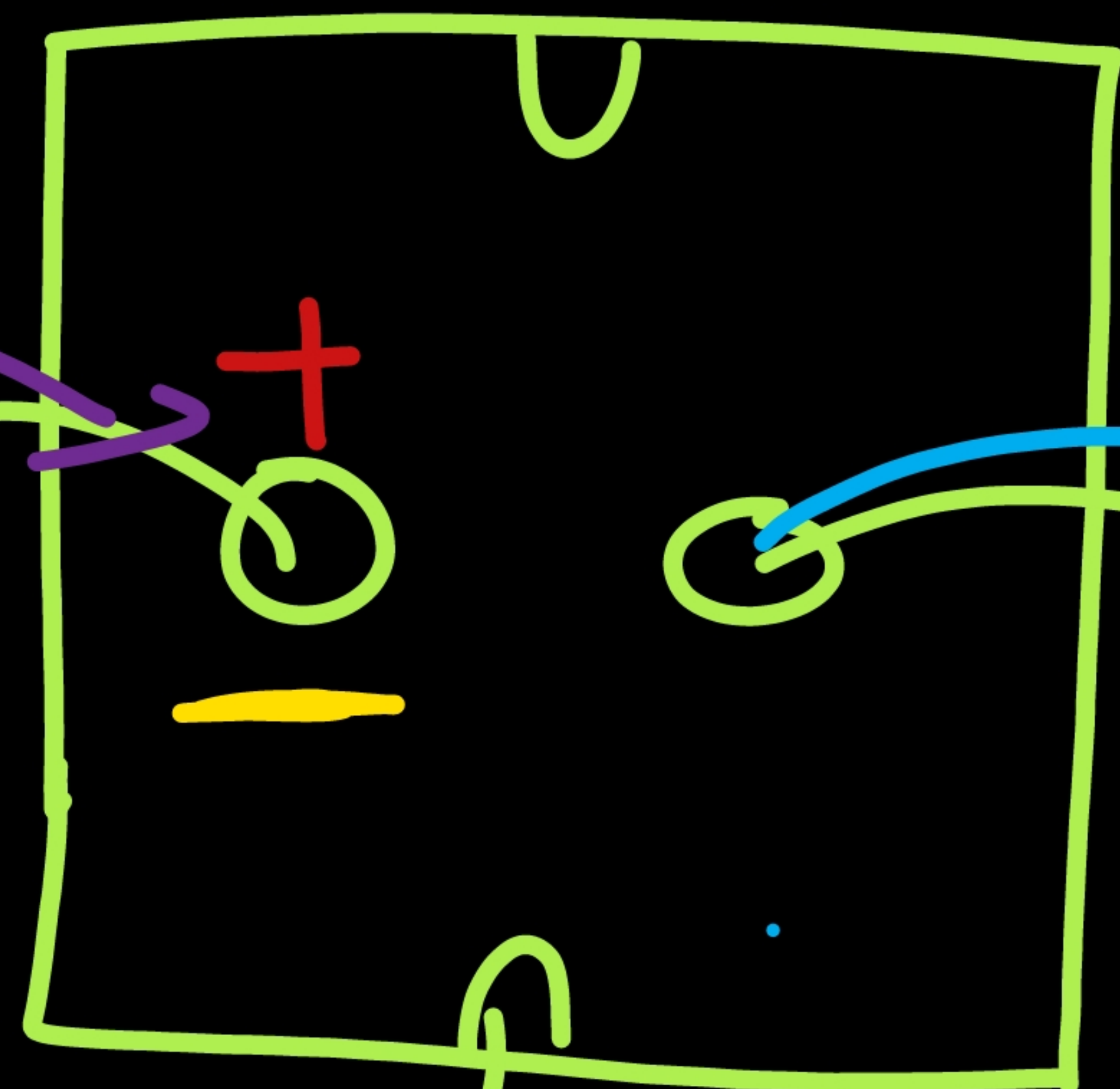


$$V_0 = \mu\alpha\tau\omicron\varsigma = 310V$$

$$\Sigma\upsilon\chi\nu\omicron\lambda\eta\tau\alpha = 50Hz$$

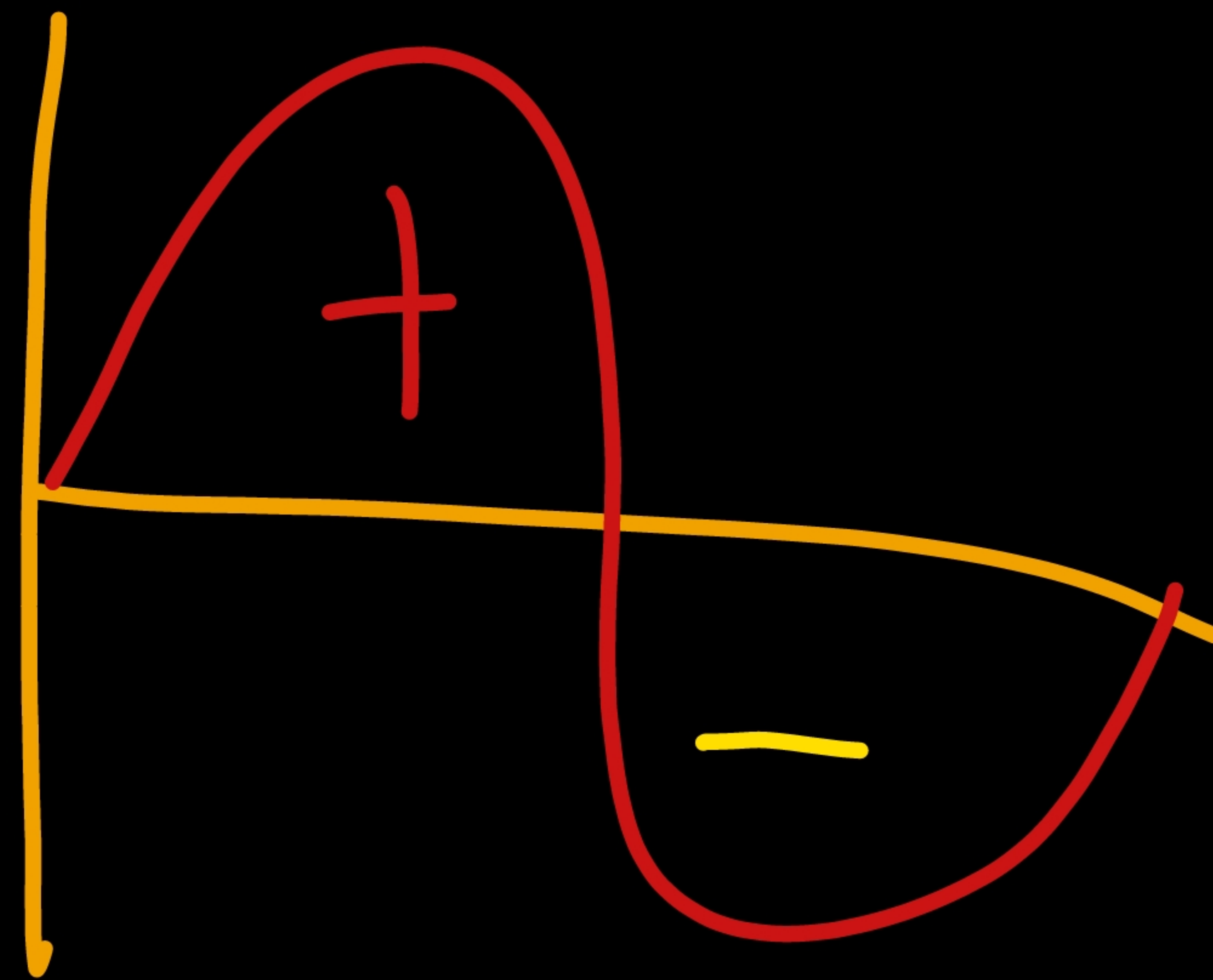


Μαύρο
Φίλη



Σειρά

Ουδενεργό



Γειωση $\rightarrow$ 

Φάση
↓
Μαύρο
καψί

ουδέτερος
↓
Γαλάζιο

Γειωση
↓
Κίτρινο

Ηλεκτρονική

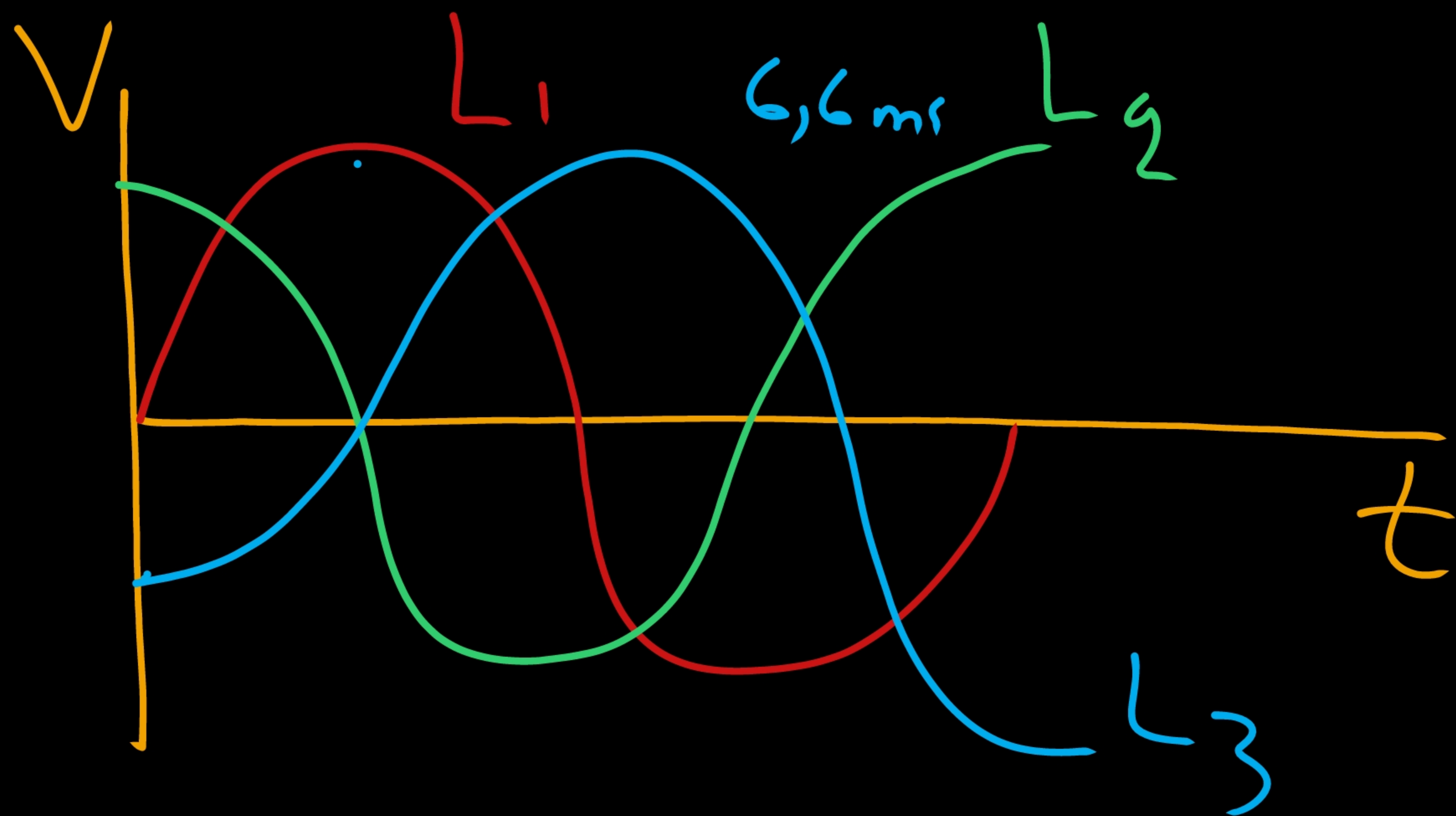
30mA → προβλεψή

Τριφασικό

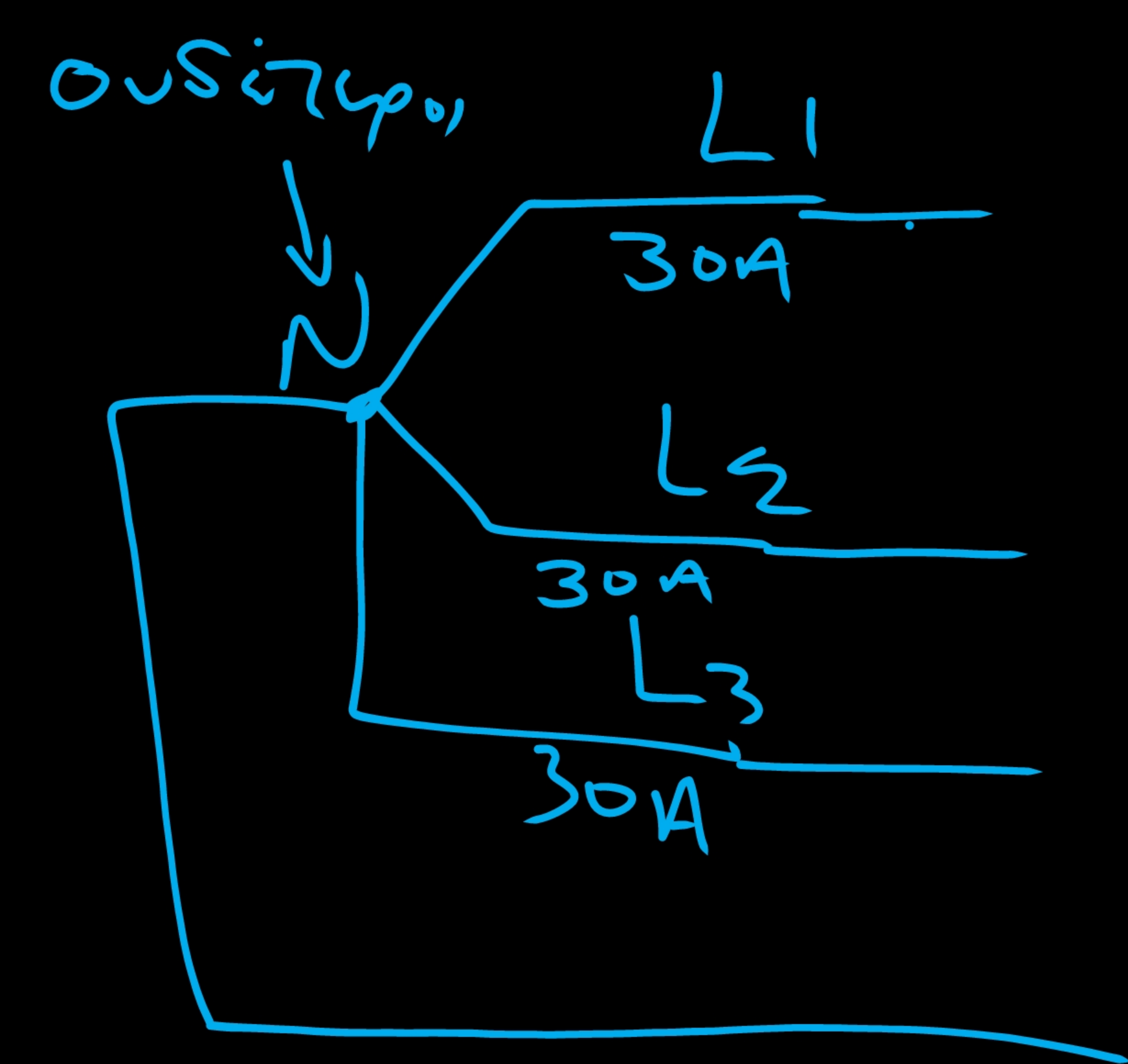


3 φάσεις L_1, L_2, L_3

N ους ετερος
πείσιωση



Διαφορά φάσης 120°
 Διαφορά χρόνου $6,6\text{ms}$



$$V_{L1-N} = 220V$$

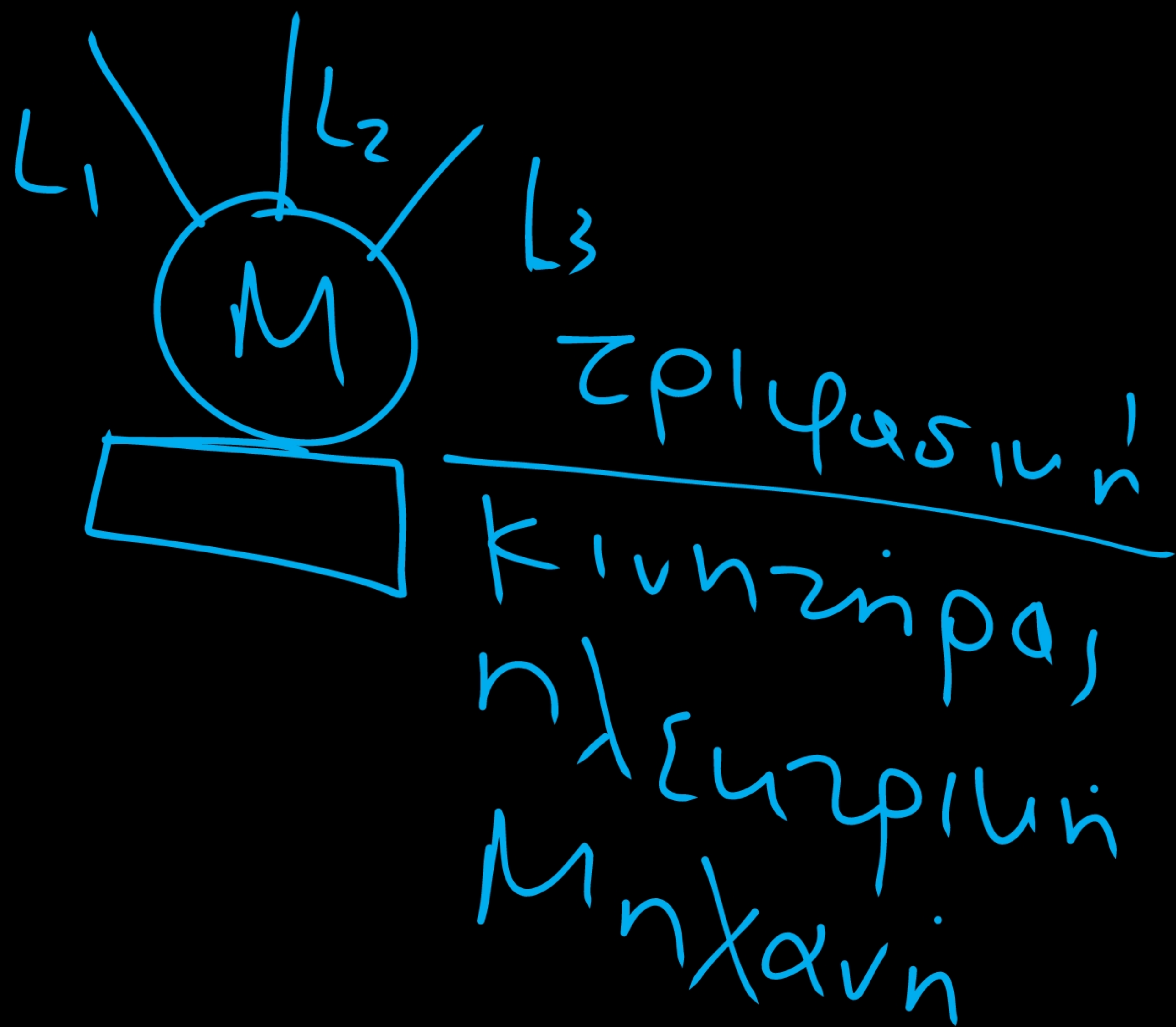
$$V_{L2-N} = 220V$$

$$V_{L3-N} = 220V$$

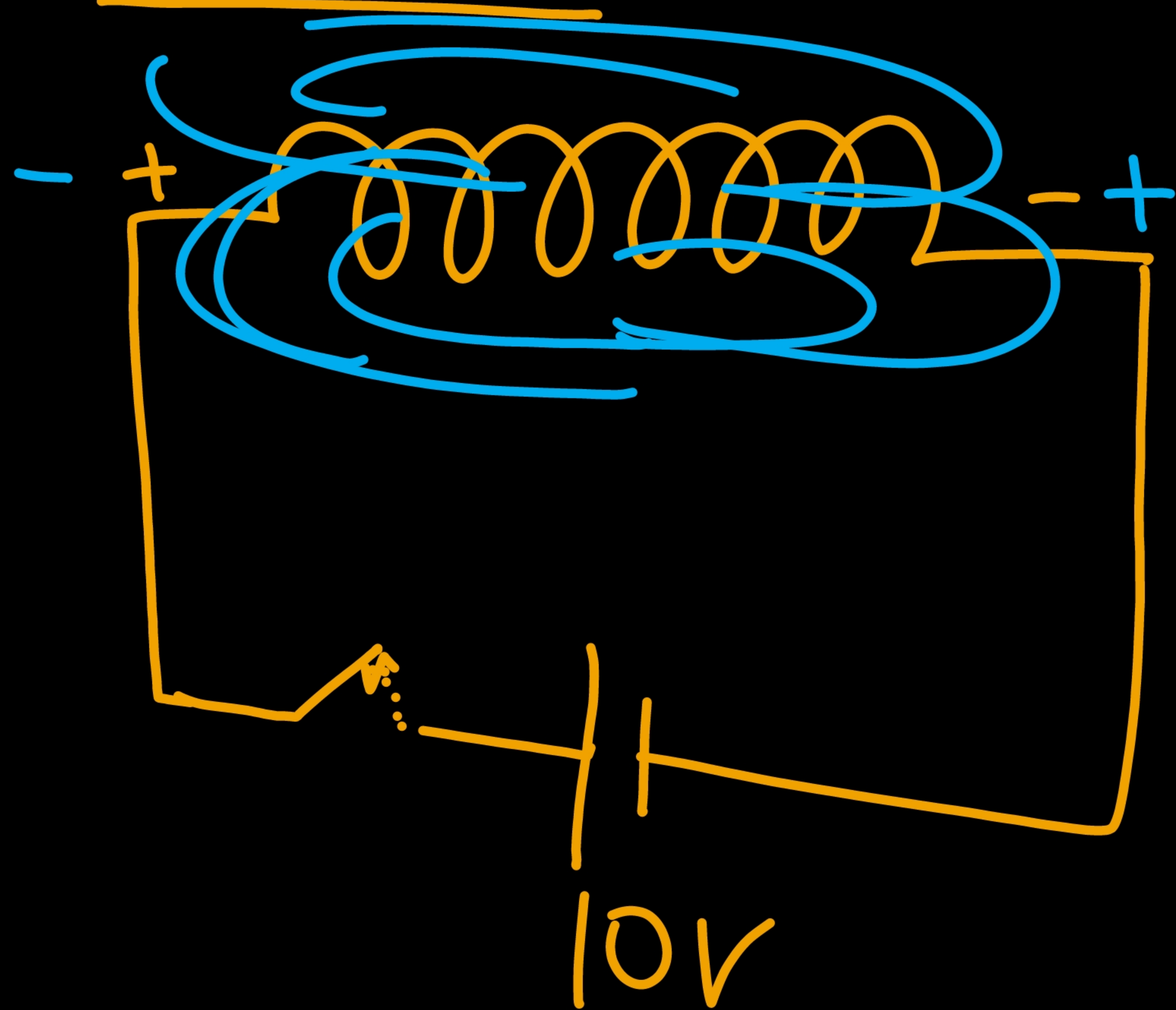
$$V_{L1-L2} = 380V$$

$$V_{L1-L3} = 380V$$

$$V_{L2-L3} = 380V$$



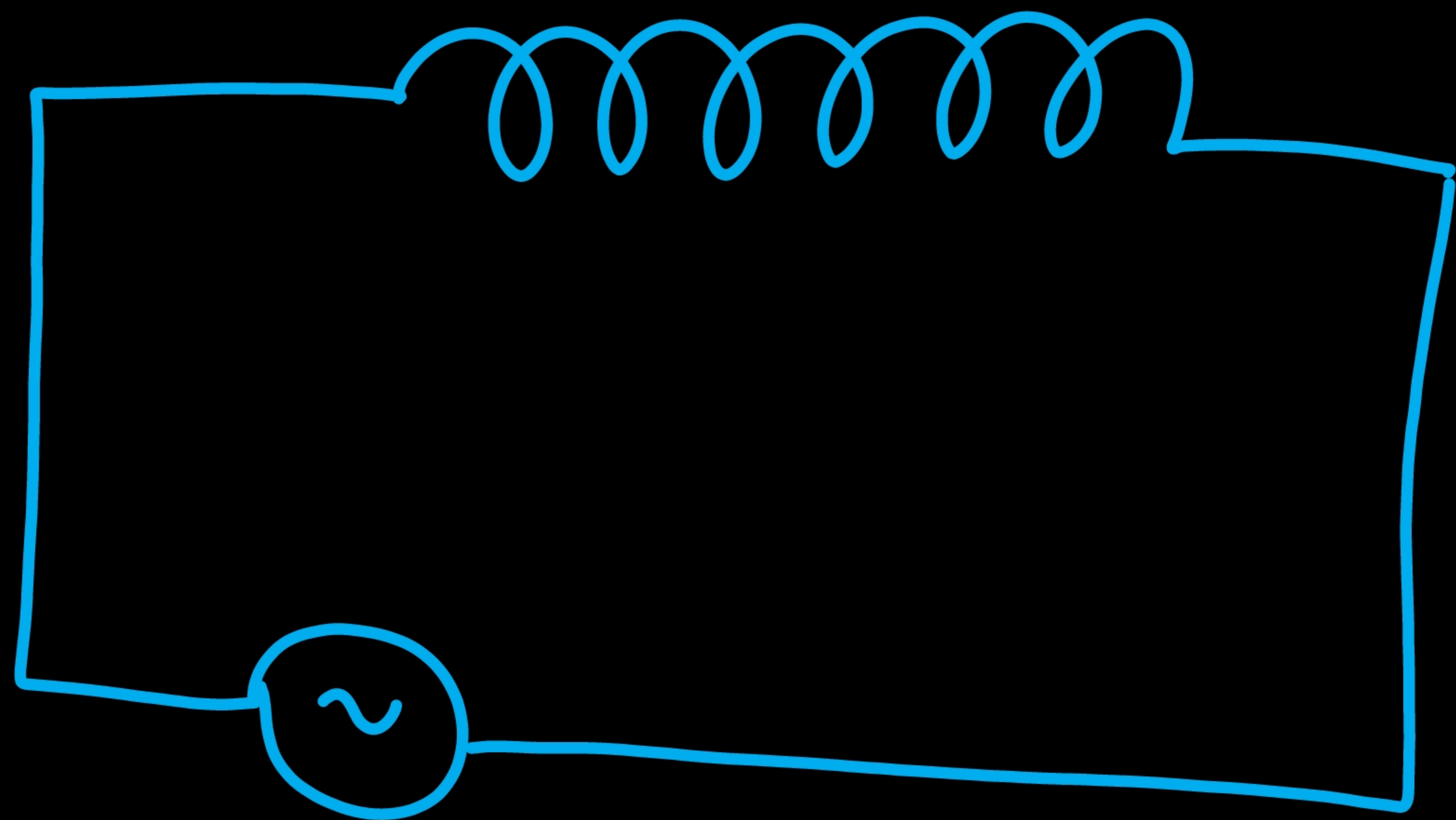
Πηγιο - coil



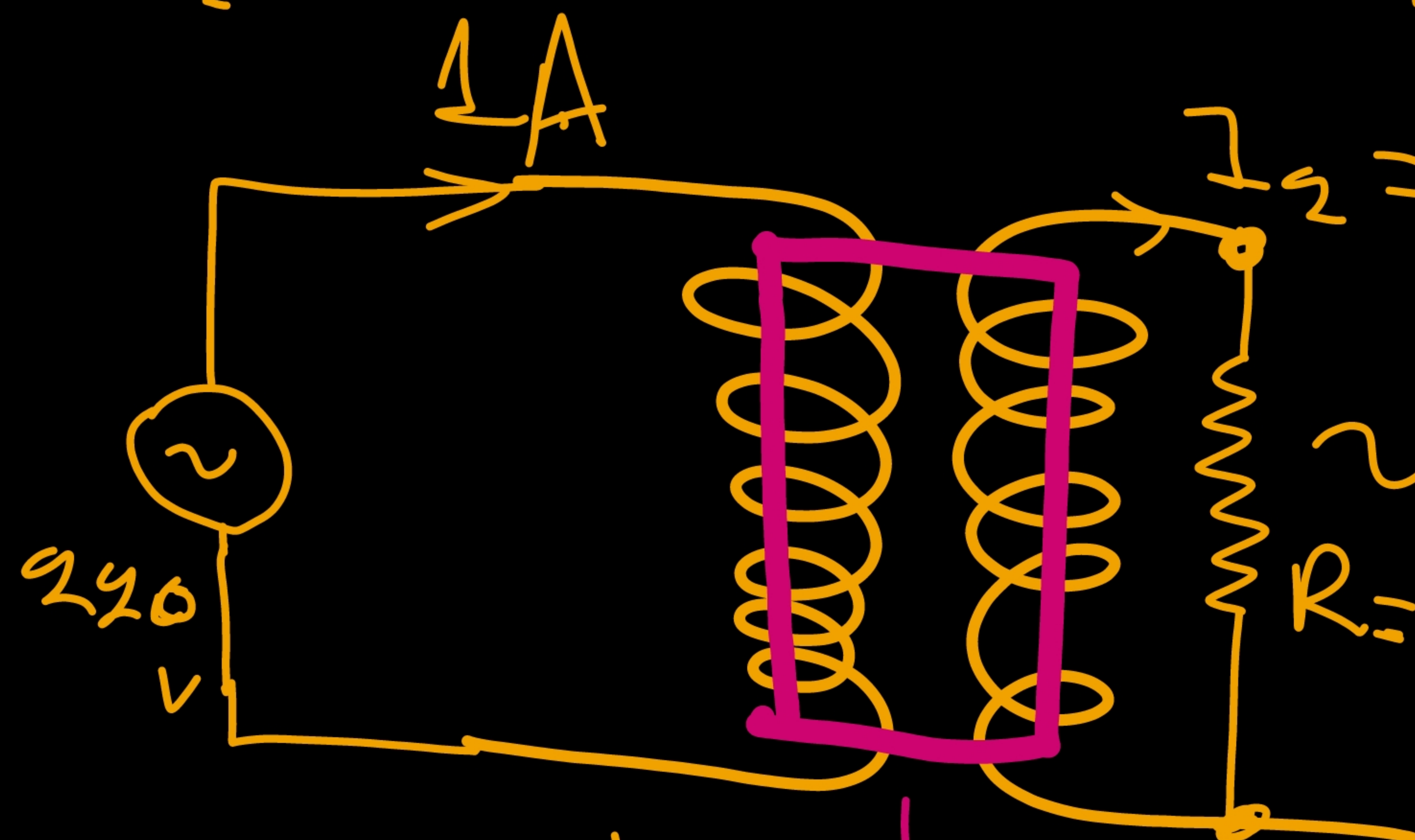
$$V_L = -L \cdot \frac{\Delta i}{\Delta t}$$

αυτεπαγωγή
 $L = 10 \text{ mH}$
Henry

ρυστός
σταθερός
ρεύμα



Μετασχηματιστής

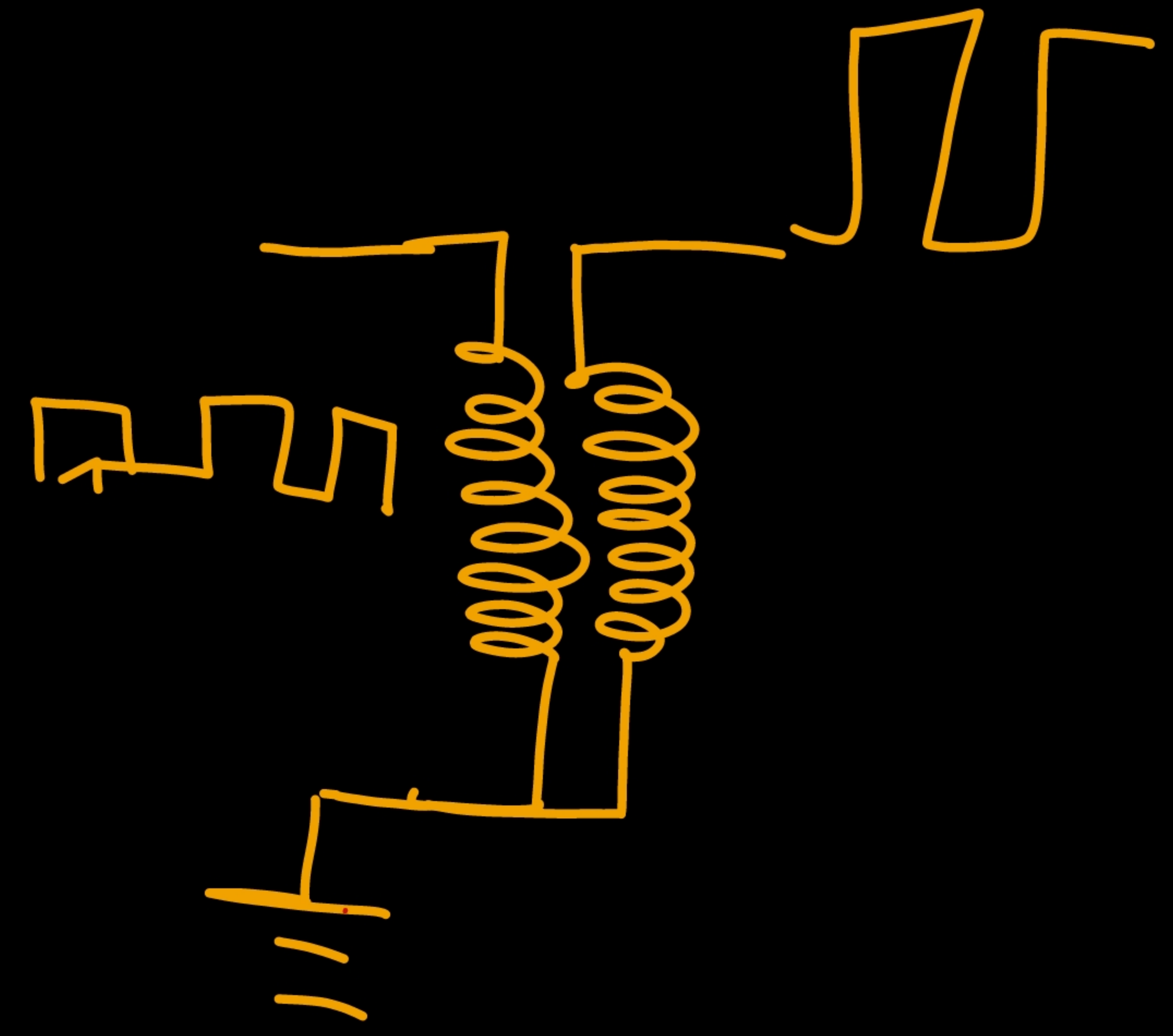
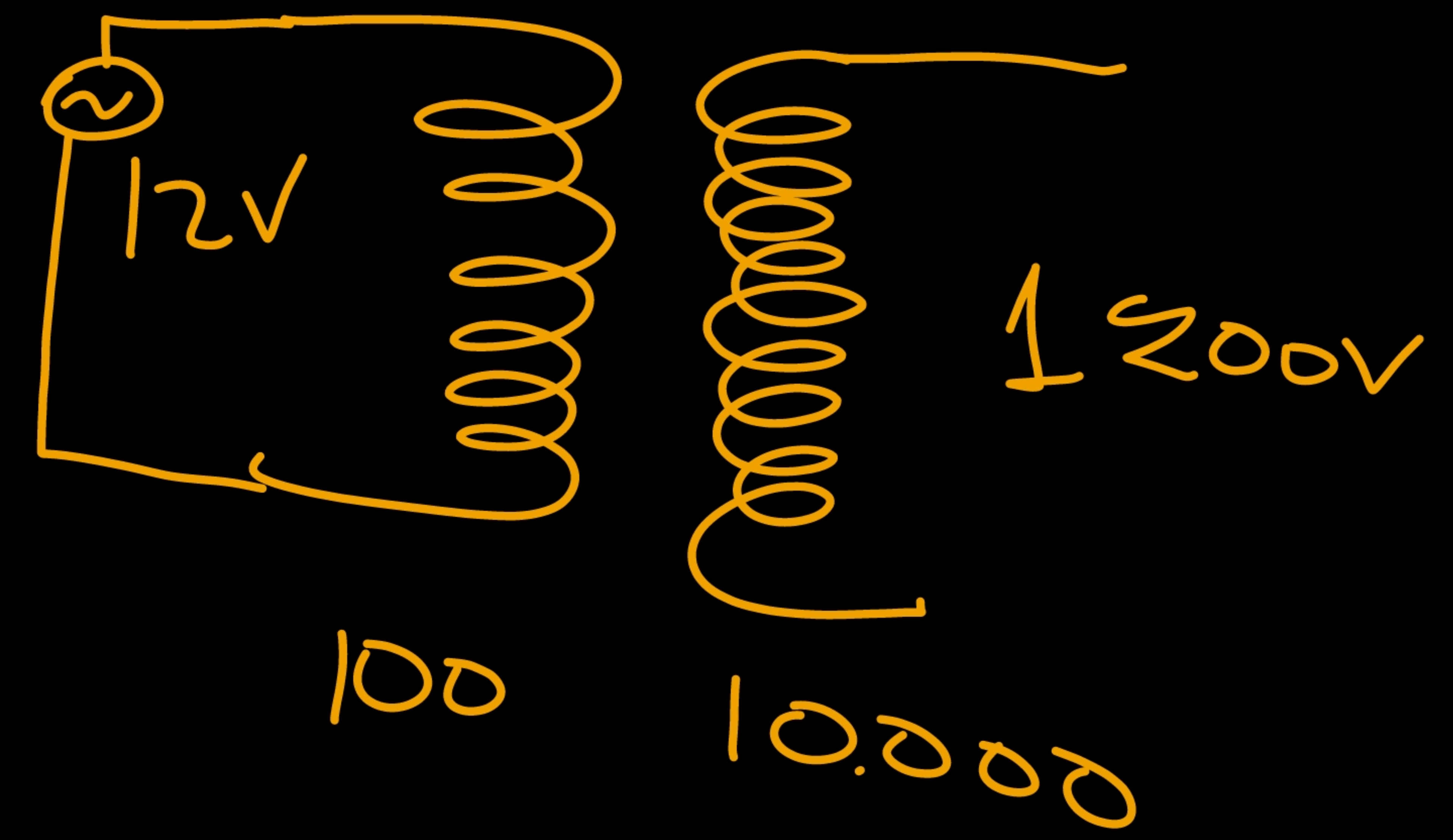


$$I_2 = \frac{V}{R} = \frac{22V}{2,20} = 10A$$

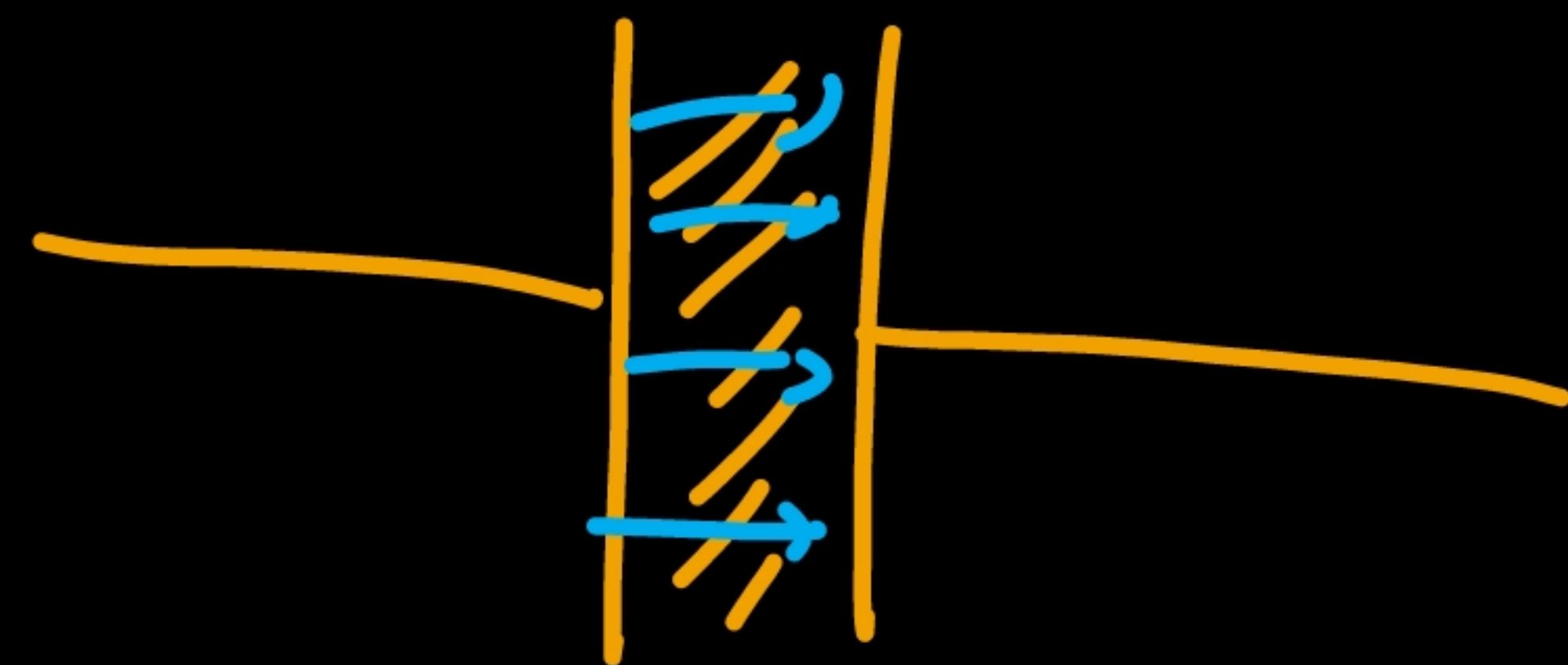
$$V_{out} = 22V$$
$$R = 2,20$$

$$P = V \cdot I$$

1000
↓
nuphas
core

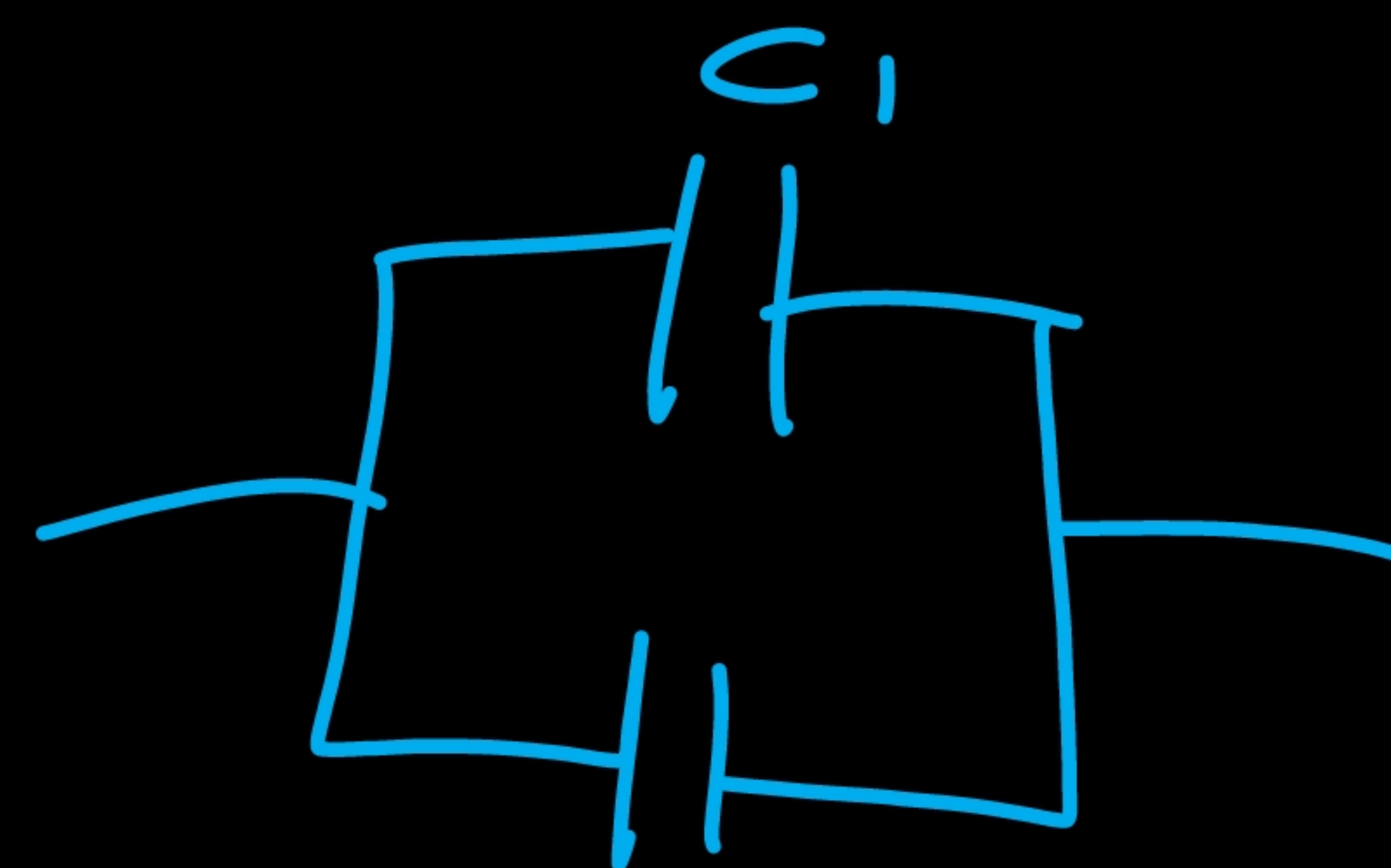


Plukwzns - Capacitor

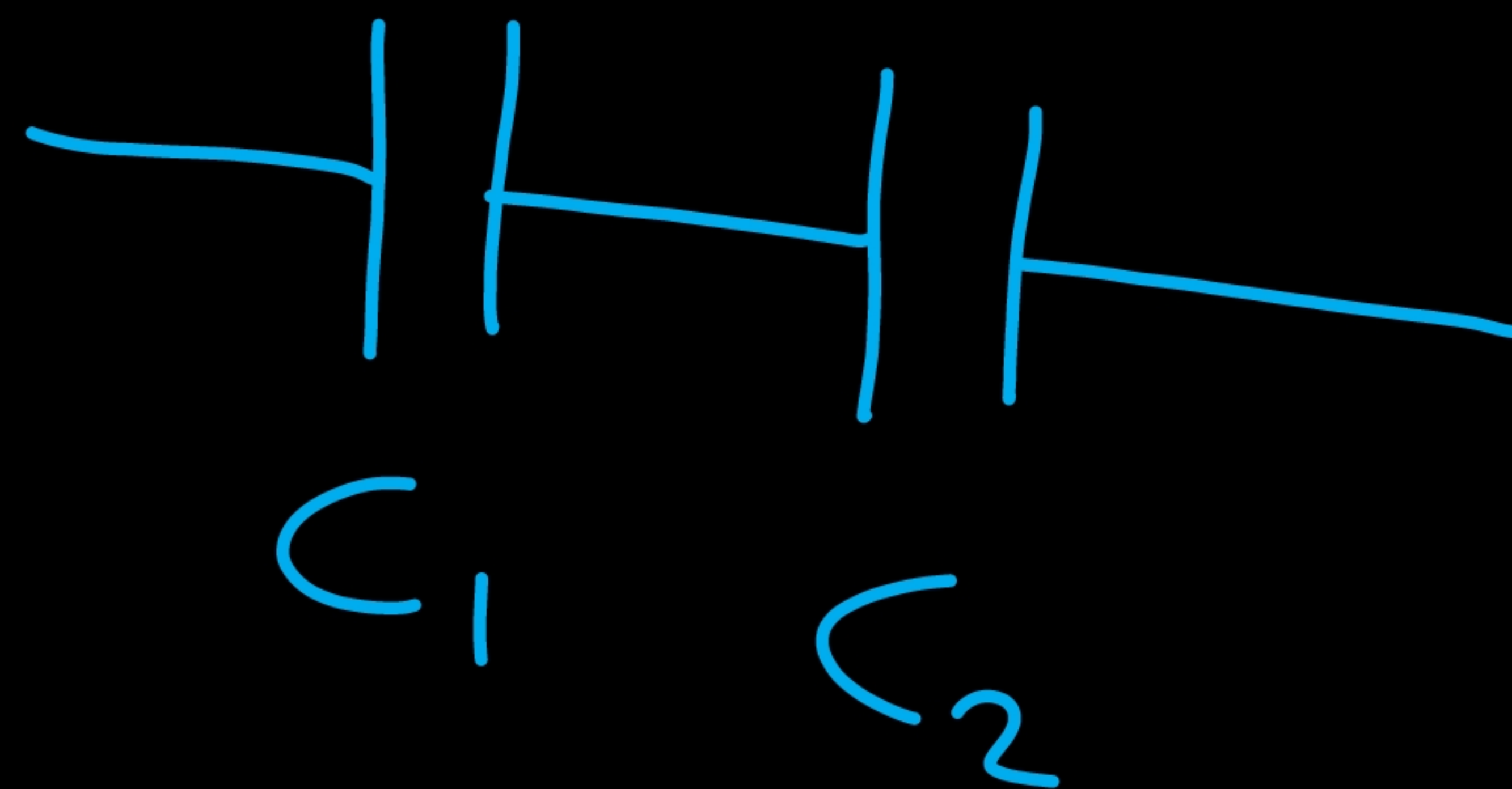


$$C = 1 \mu F$$

Farad

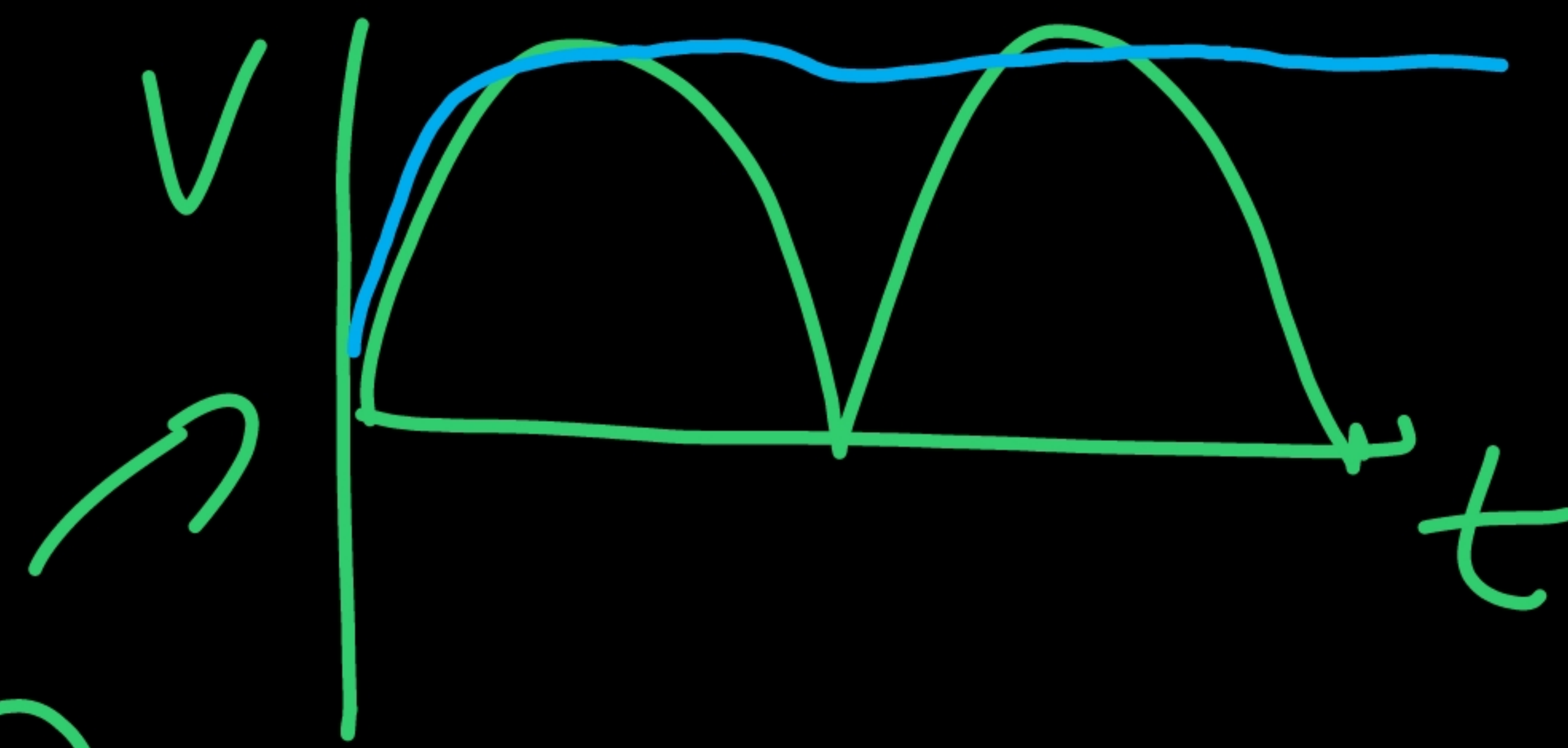
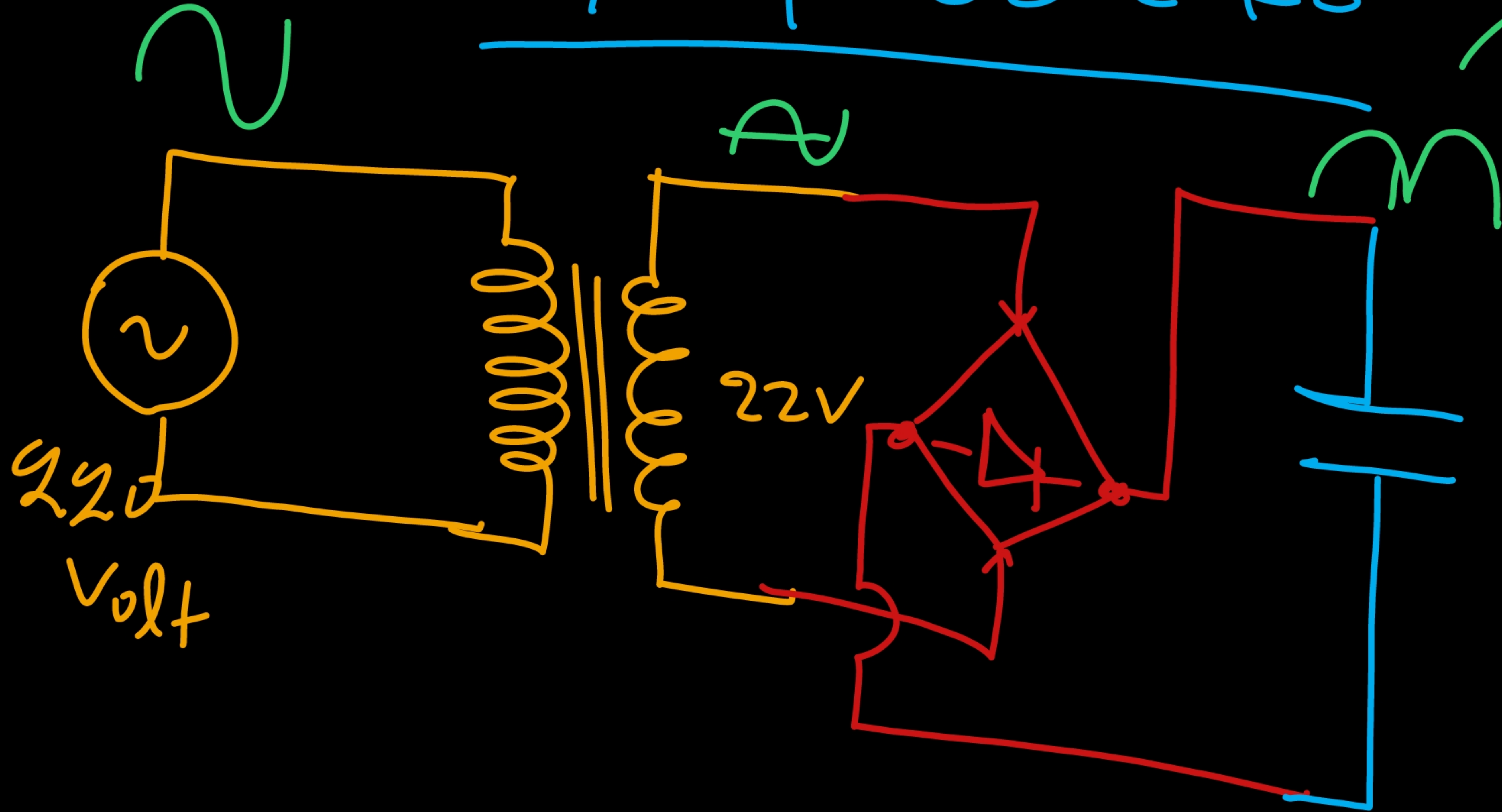


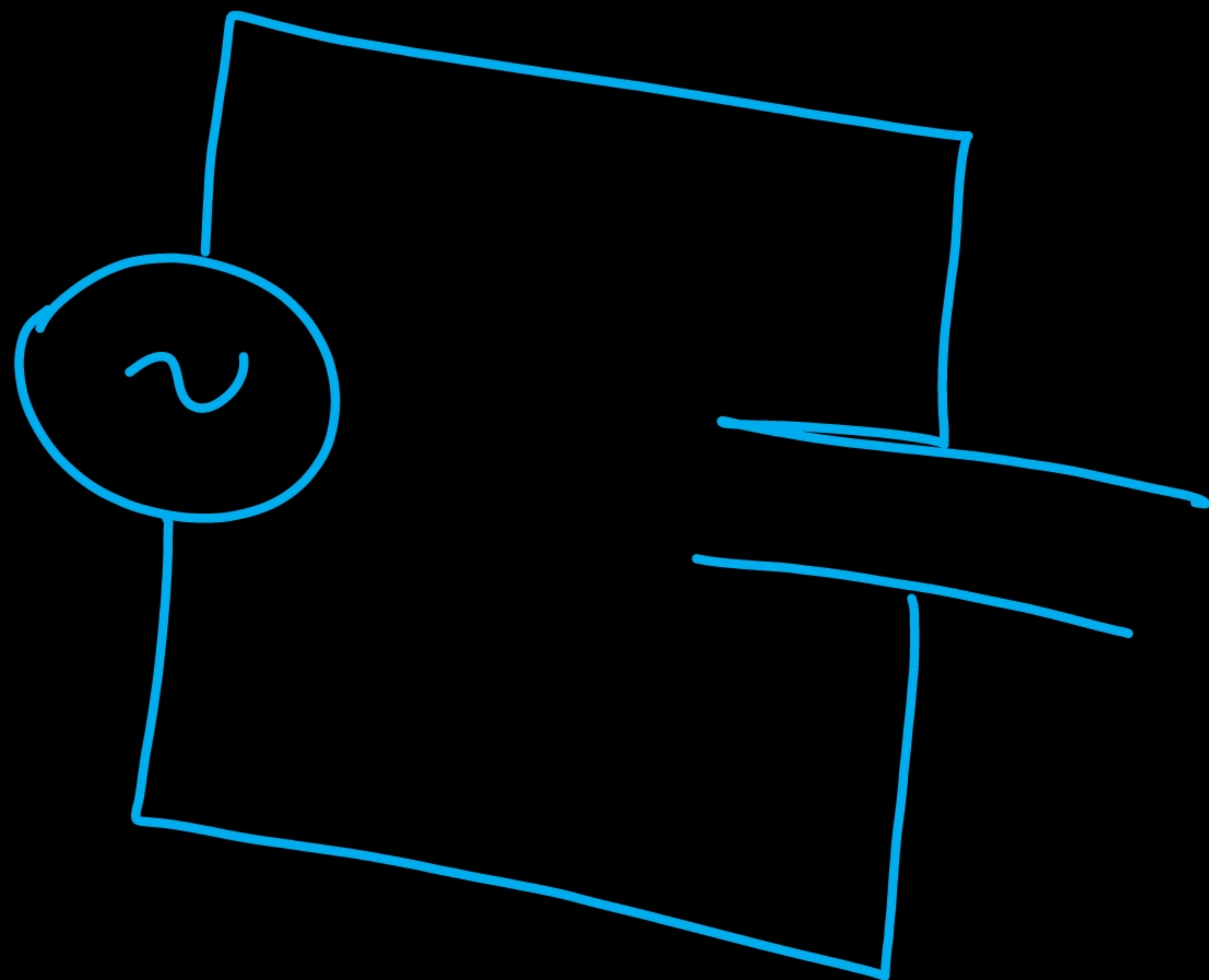
$$C_0 = C_1 + C_2$$



$$C_0 = \frac{C_1 \cdot C_2}{C_1 + C_2}$$

Τροφοδοζηση

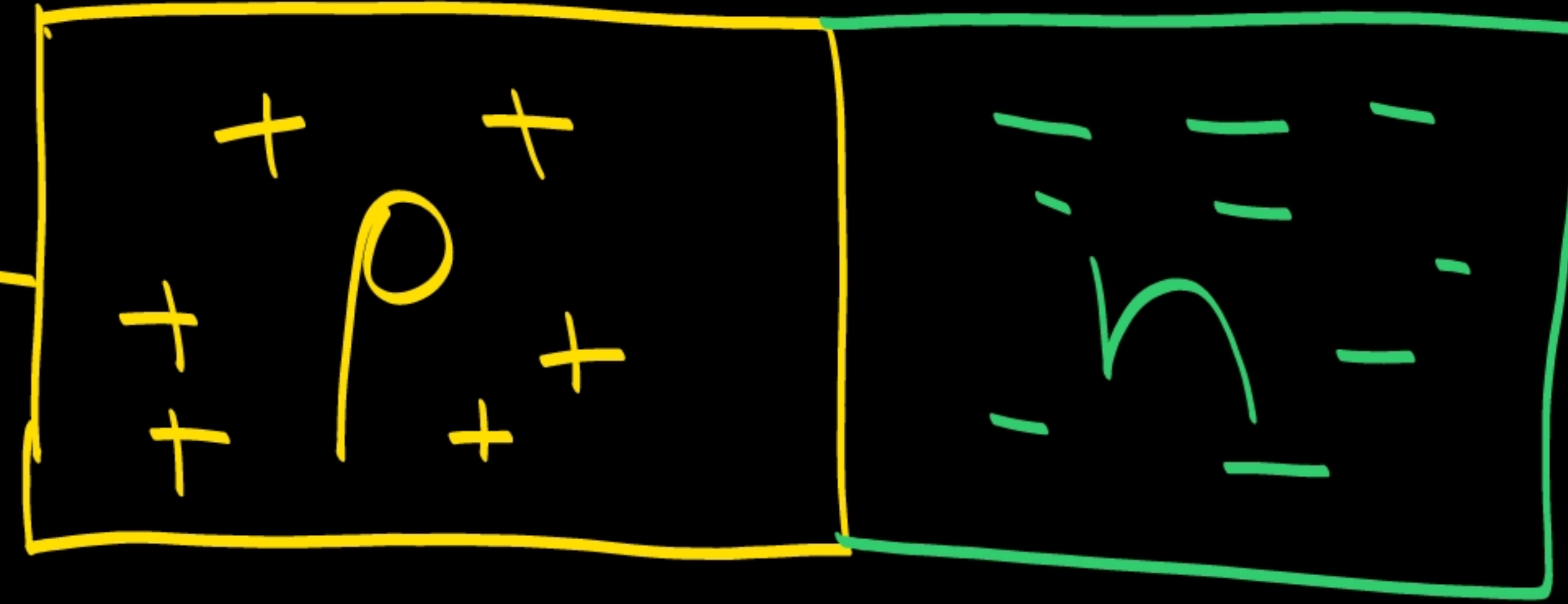




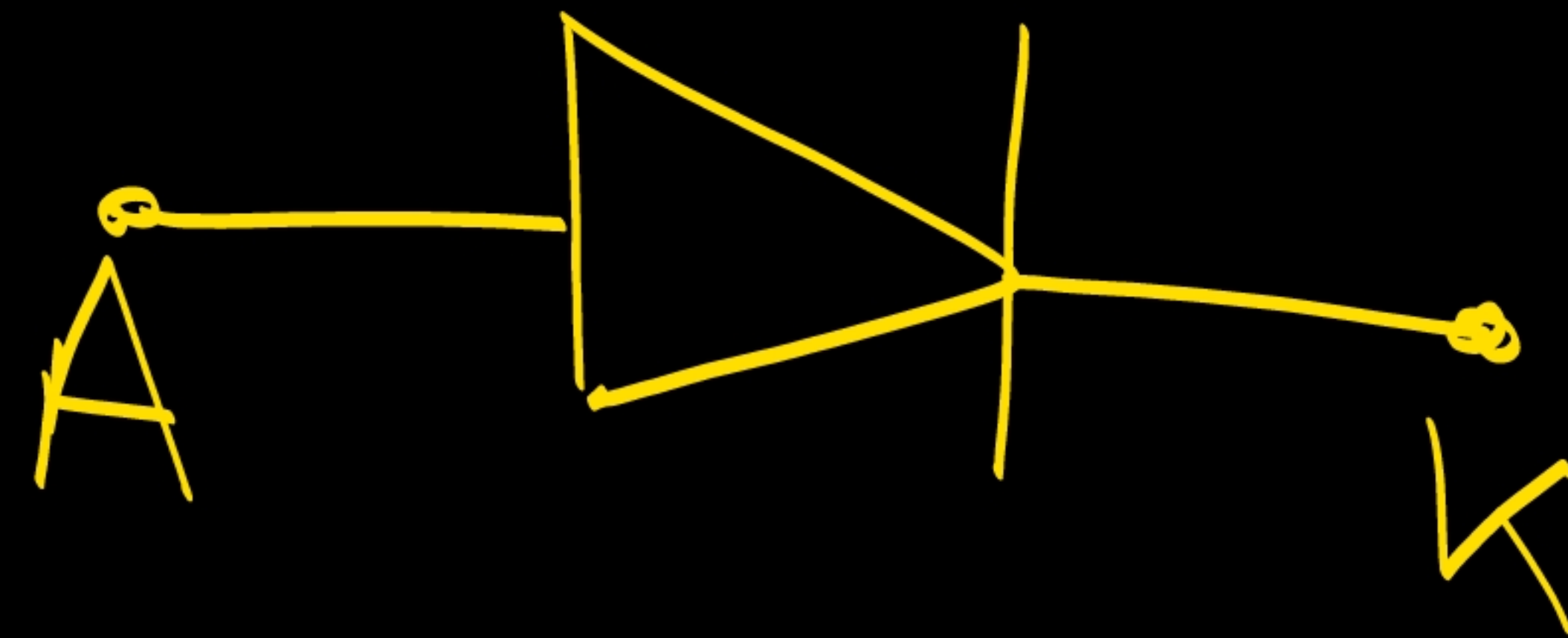
Αρχές Ηλεκτρονικής

Δίοδος

Ανοδος

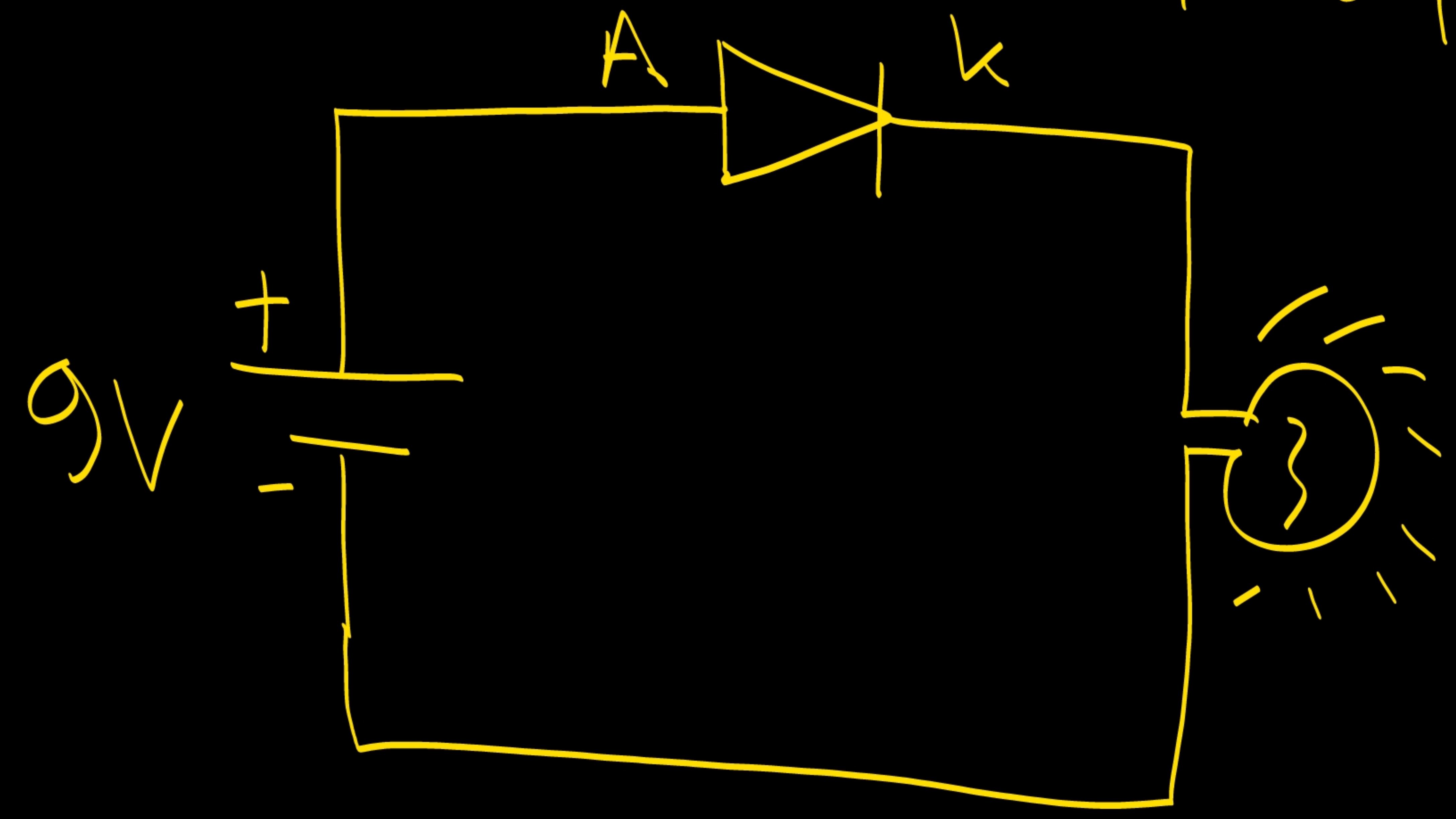


Καθόδος



$A \rightarrow +$
 $K \rightarrow -$

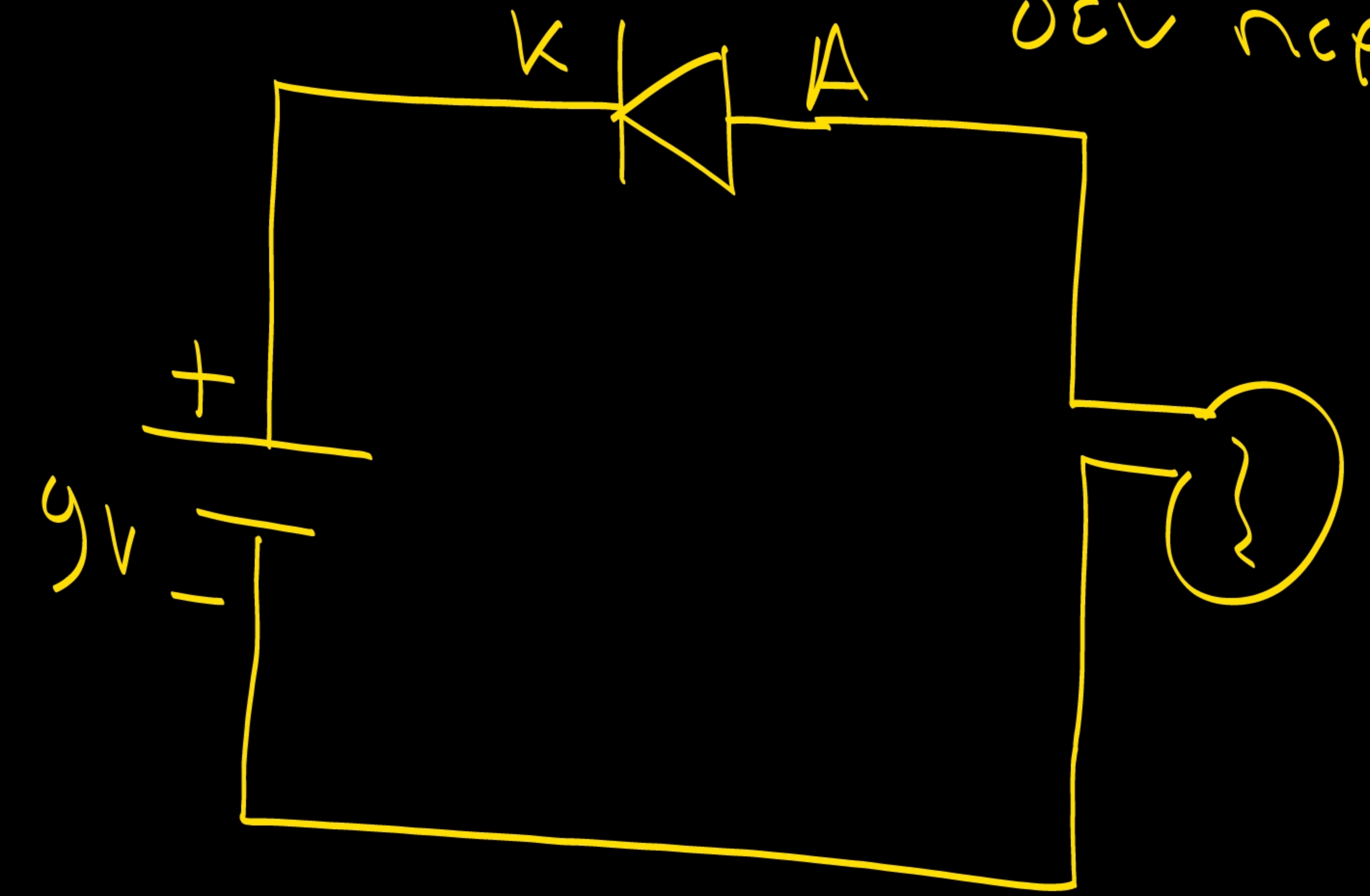
} ορθή πολωση
 περνάει ρεύμα

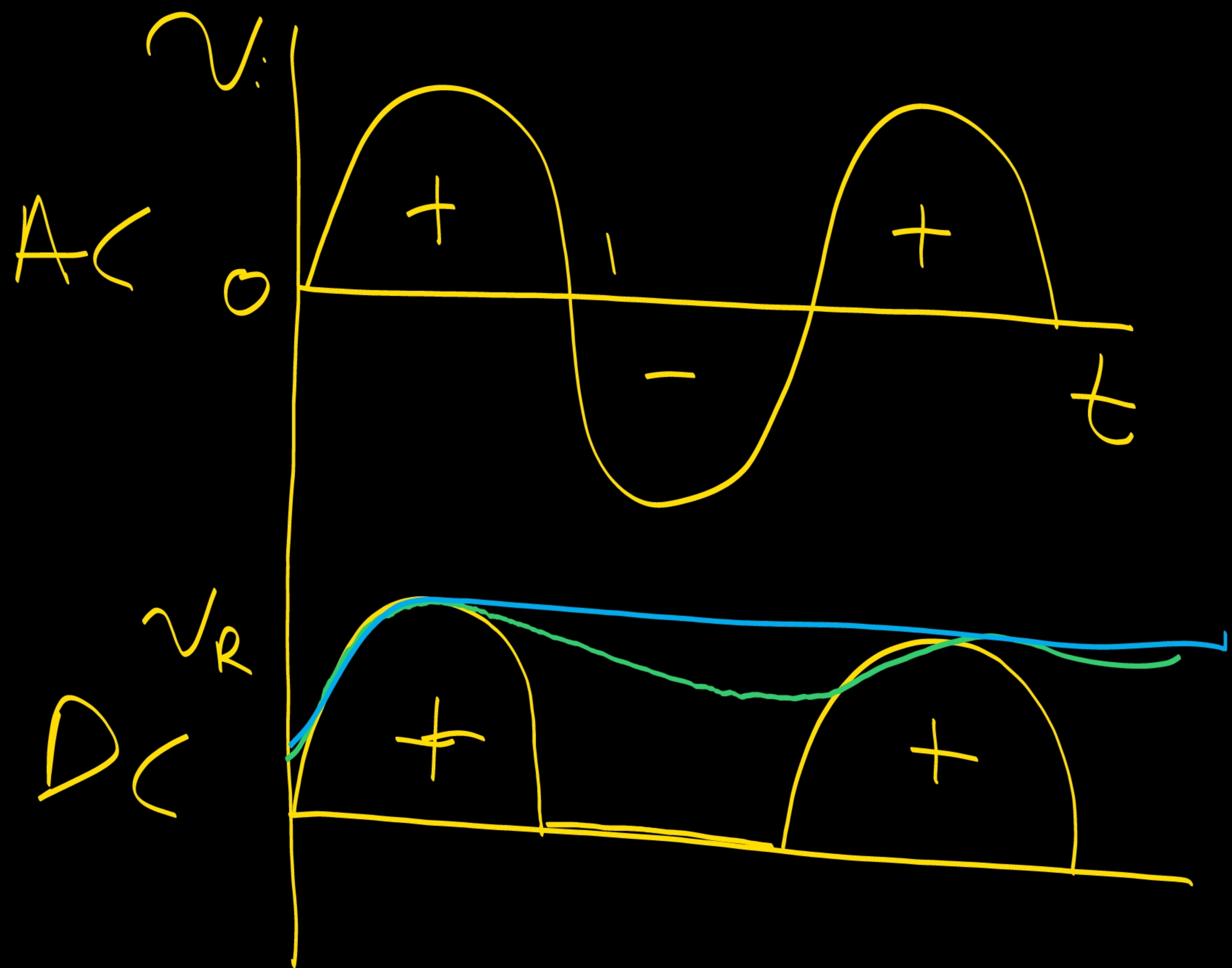
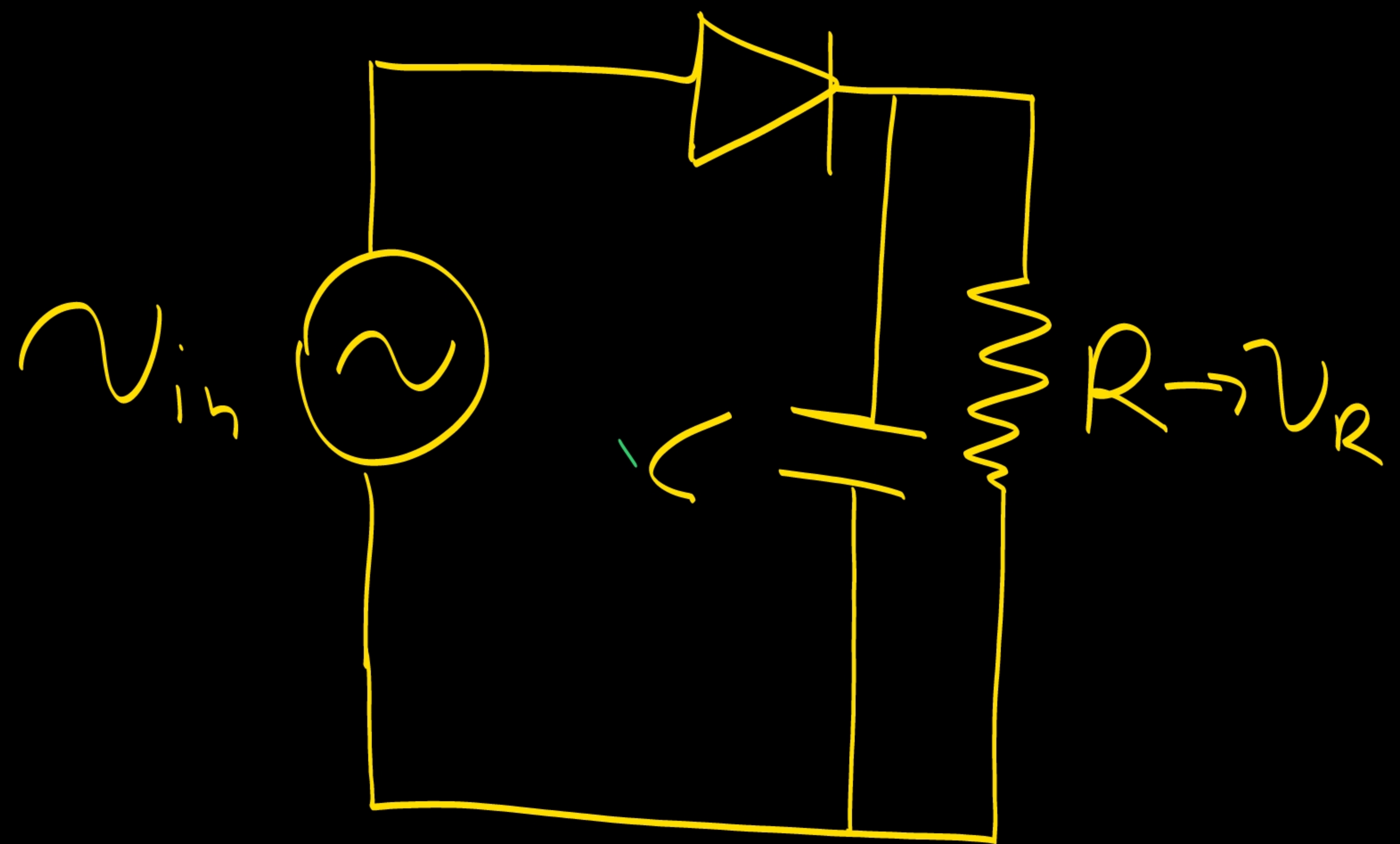


$K \rightarrow +$
 $A \rightarrow -$

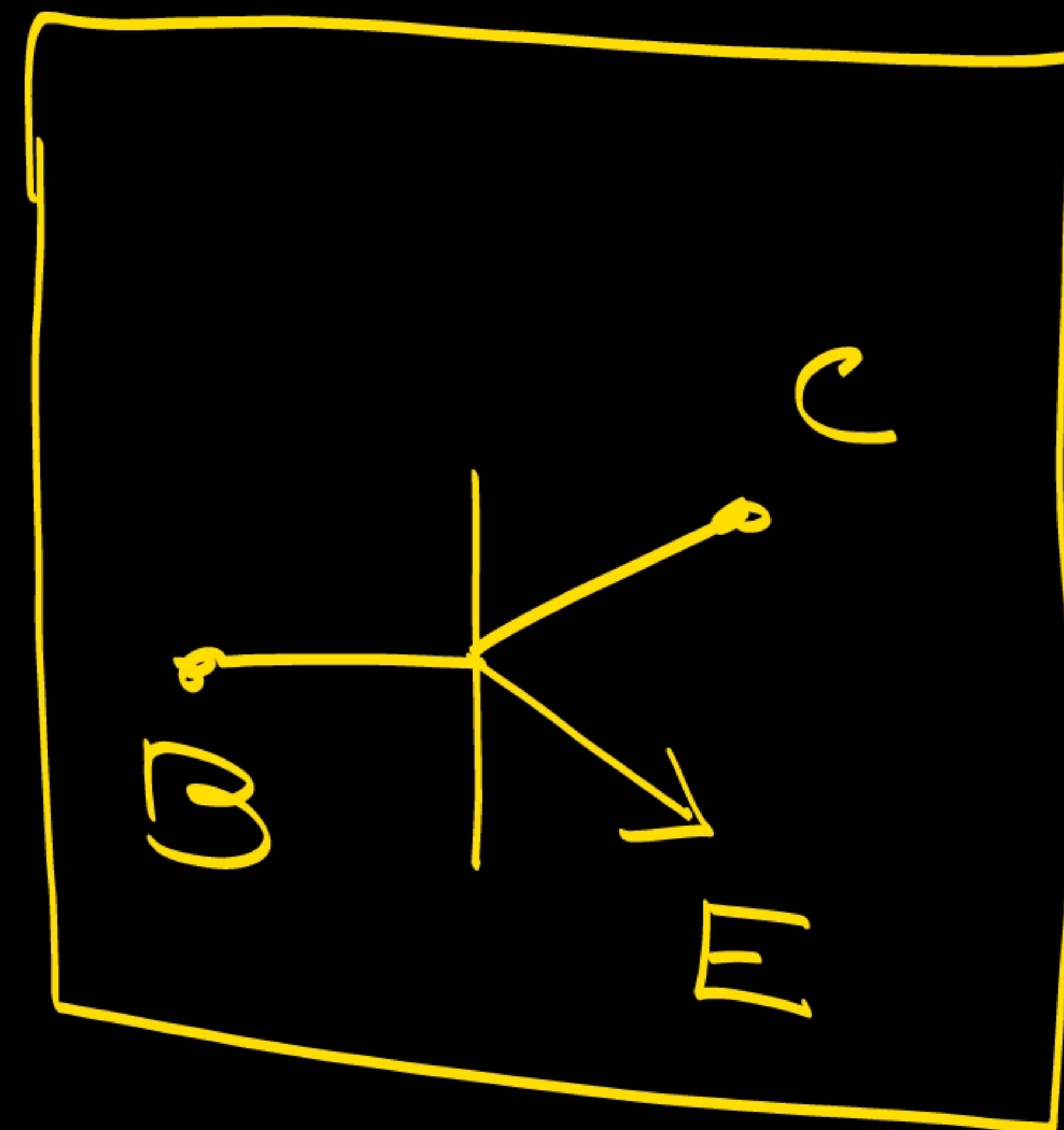
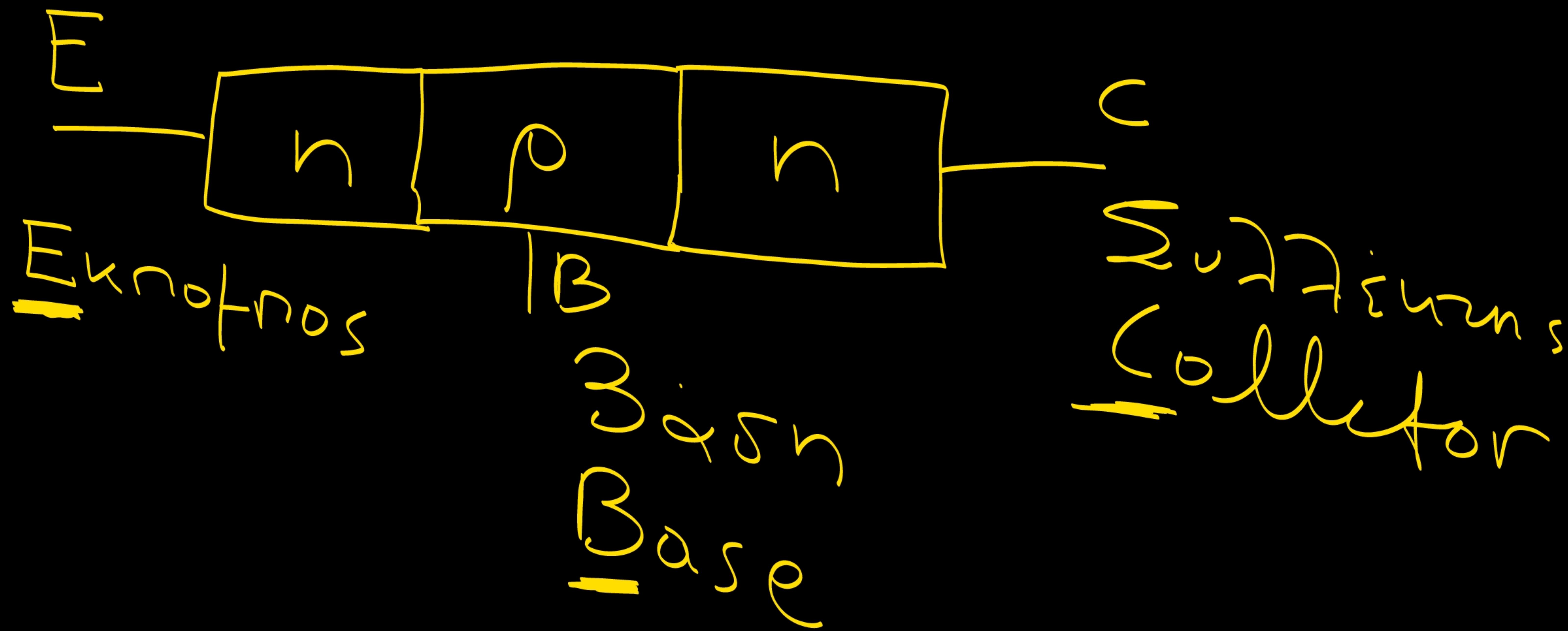
} ανάστροφη
 πολωση

 δεν περνάει ρεύμα





Τρανζίστορ



Συνδεσμολογία Τρανζίστορ

Ενισχυτής κοινού Εκπομπού

