

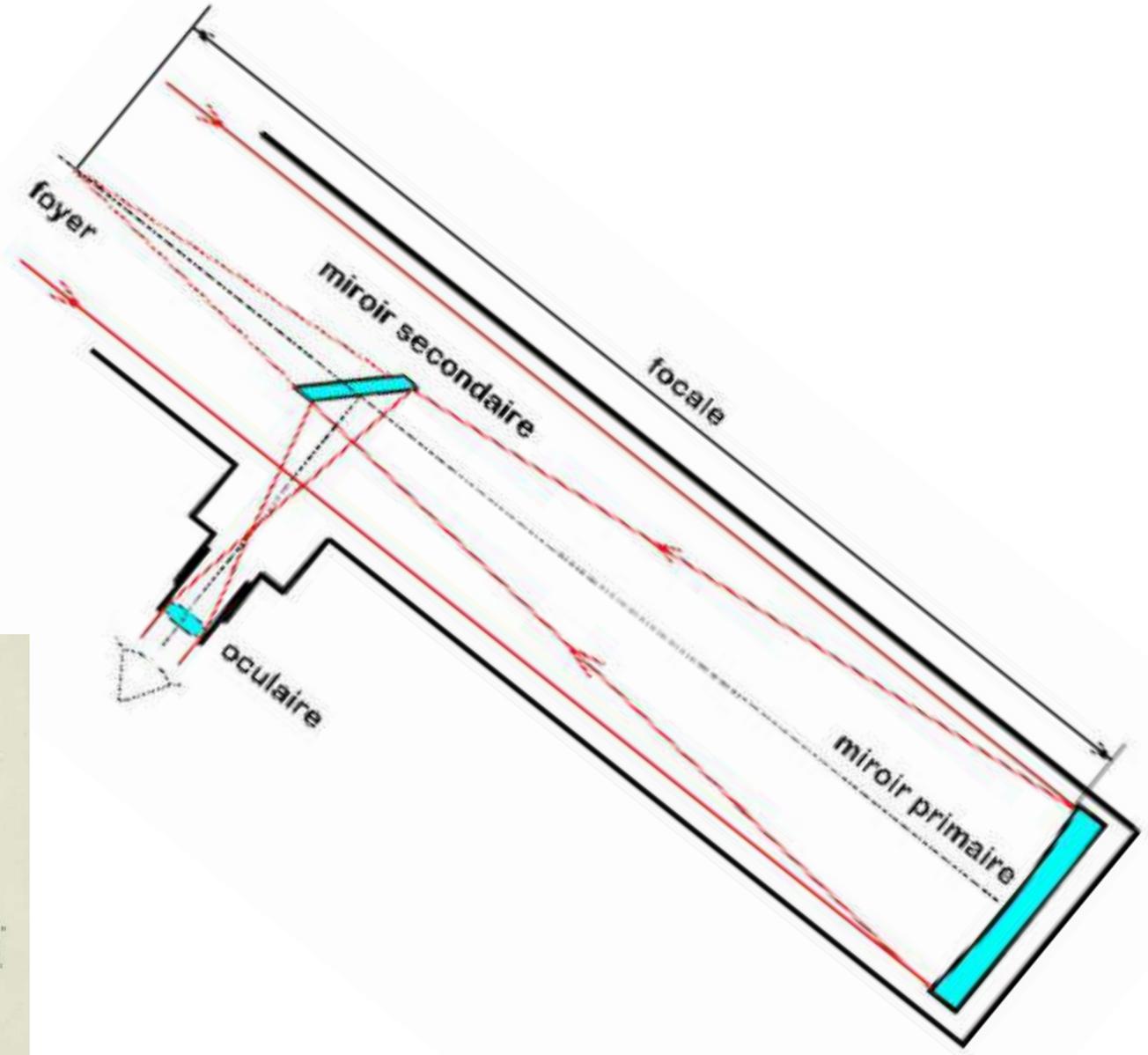
LES GRANDES OREILLES

N° 1

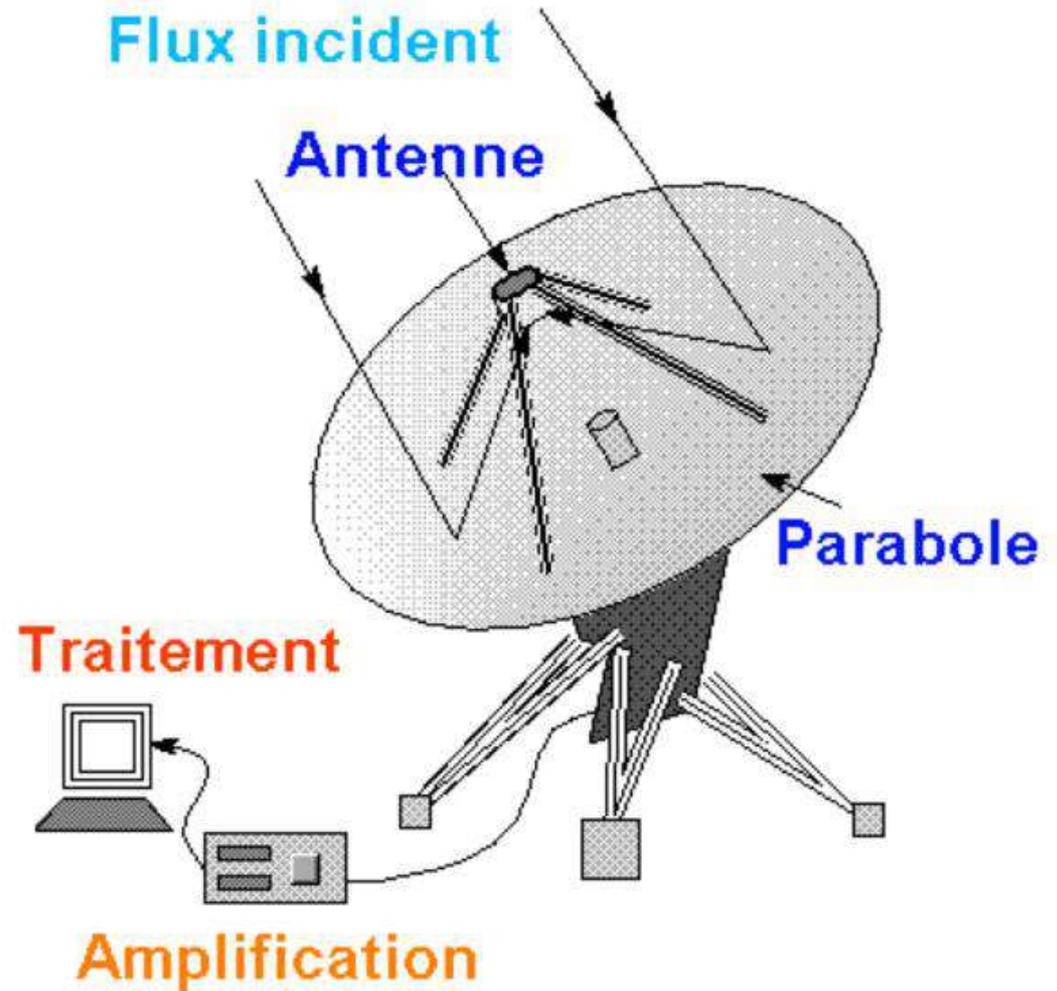
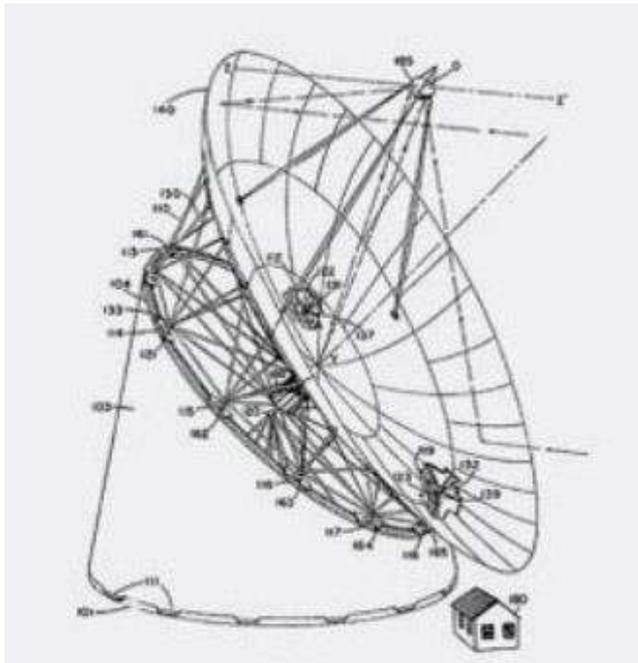
LES MAINS DANS LE CAMBOUIS



TELESCOPE



RADIOTELESCOPE ?



TELESCOPE VERSUS RADIOTELESCOPE

MIROIR(s)

**concentrer
(taille)**

ANTENNE

OCULAIRE(s)

amplifier

RECEPTEUR

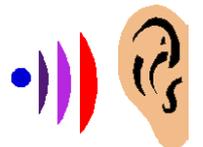


AMPLIFICATEUR(S)

DIVISEUR

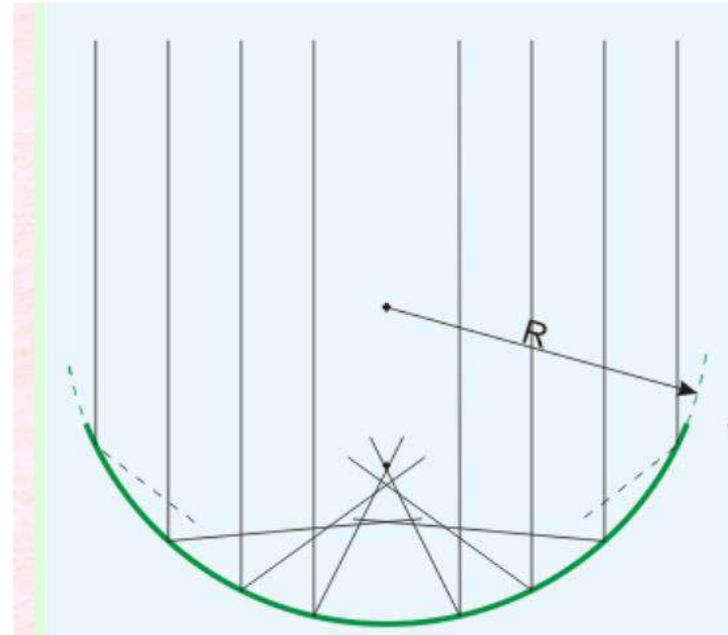
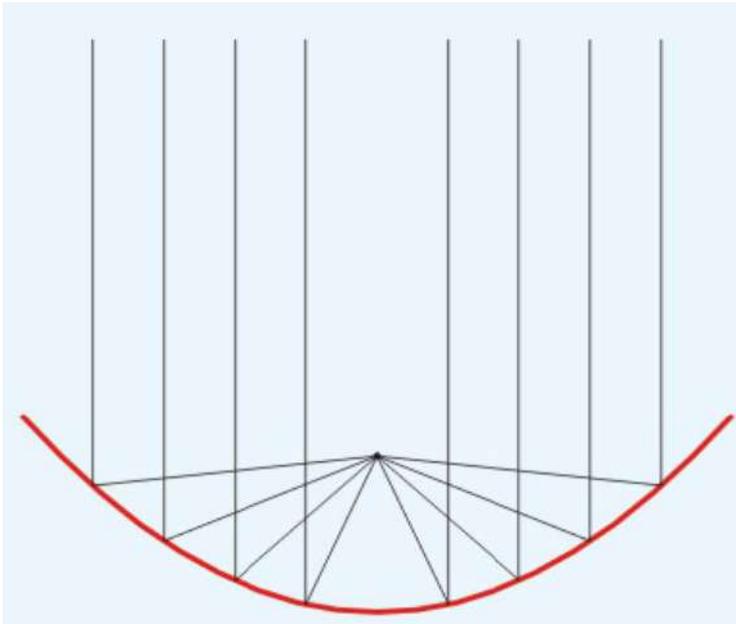
REDRESEUR

SONIFICATEUR



LA PARABOLE

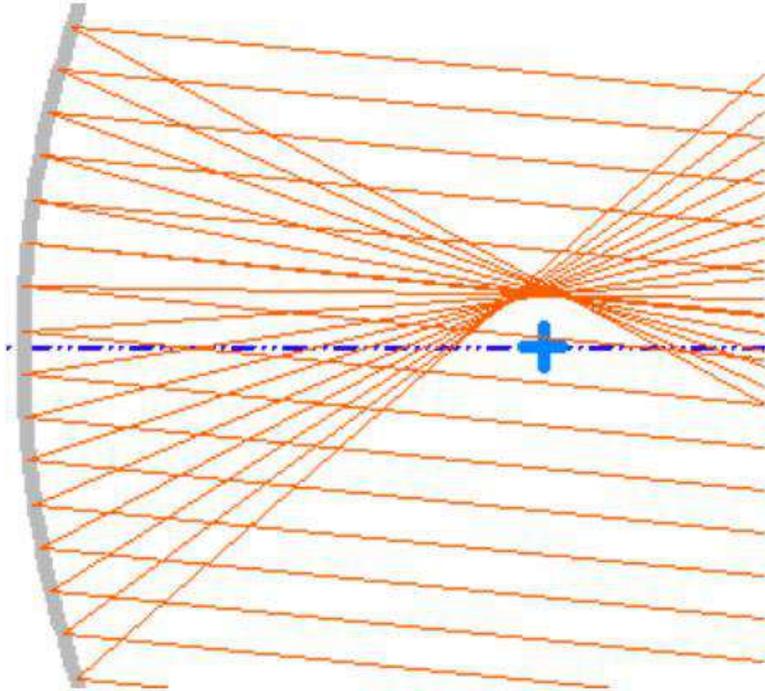
La PARABOLE conjugue l'infini à un point le foyer



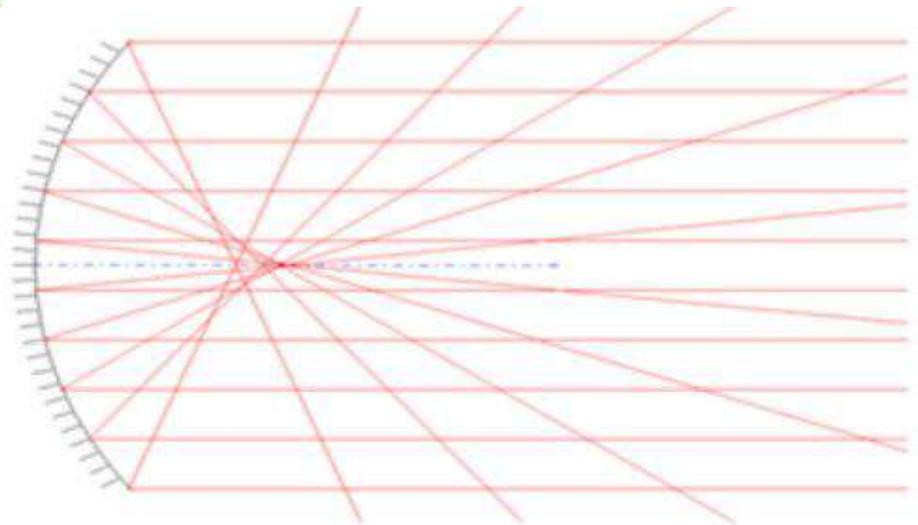
Contrairement à la sphère

La PARABOLE transforme une onde plane en onde sphérique*

Aberration de sphéricité pour un objet paraxial



Aberration de sphéricité



LE RECEPTEUR RADIO LE PLUS SIMPLE

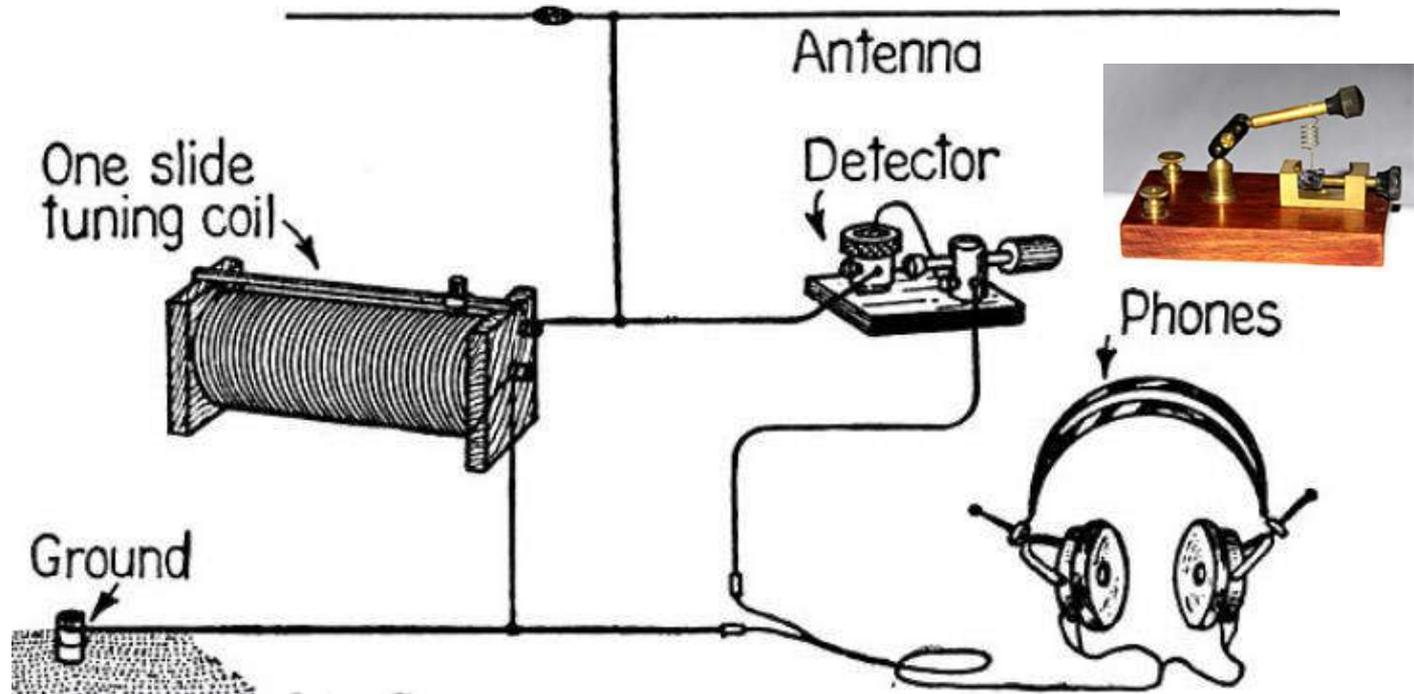
En 1874, K. F. Braun découvrit les propriétés semiconductrices de la galène : le contact entre une pointe métallique et un cristal de galène peut former ce qu'on appelle aujourd'hui une diode Schottky. En 1906, il utilisa cette propriété, permettant la séparation du signal de la porteuse, pour concevoir un récepteur radio : le **poste à galène**. Cette découverte lui valut le prix Nobel de physique qu'il partagea avec G. Marconi en 1909.



« LE POSTE A GALÈNE »

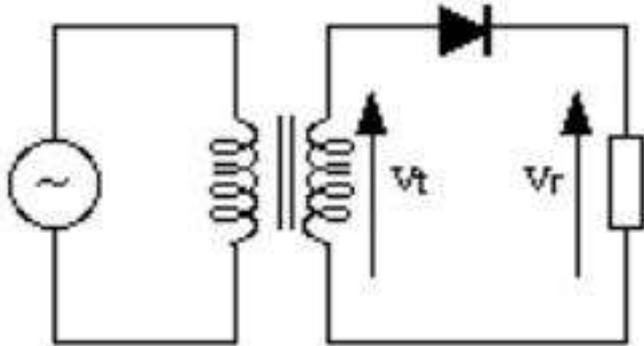


**Sulfure de Plomb
PbS**

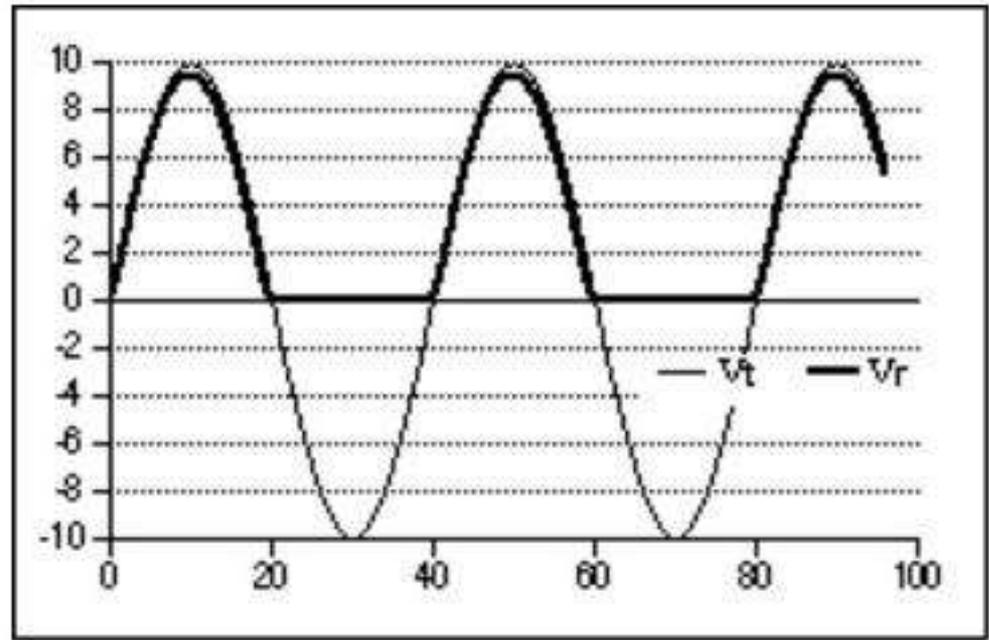


LA GALÈNE COMME RECEPTEUR-REDRESSEUR

Redressement par une Diode

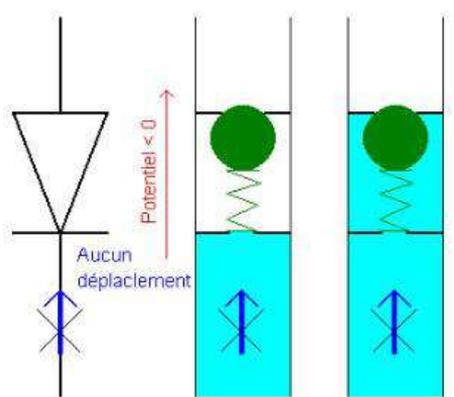
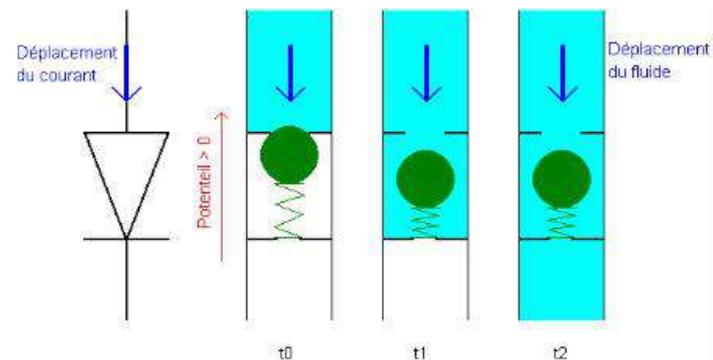
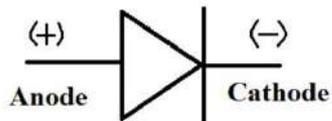


Elimination des parties négatives

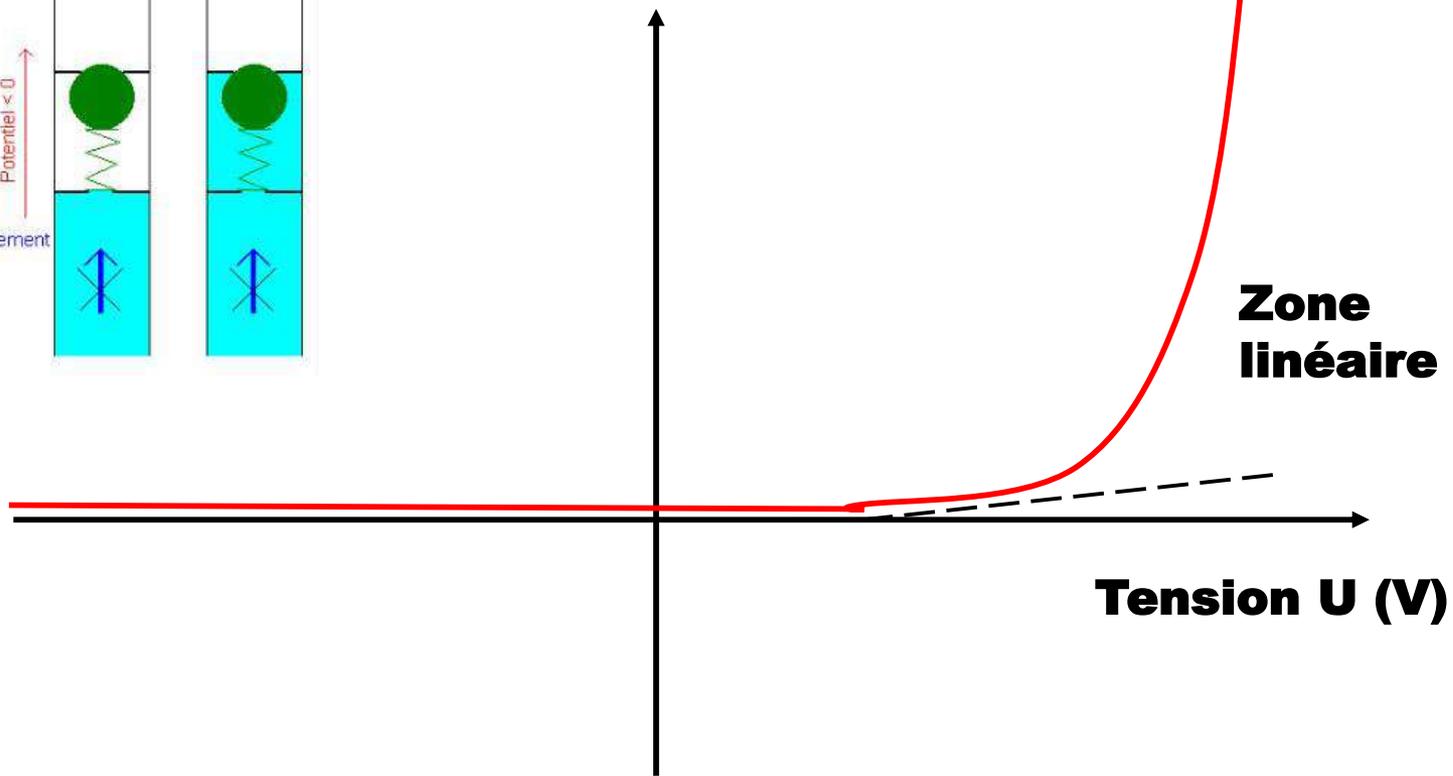


Redressement du courant

POURQUOI LA DIODE FAIT ÇA ?

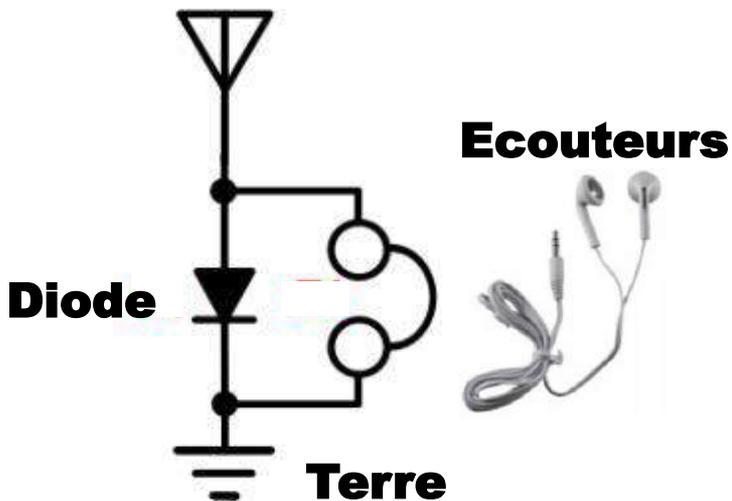


Courant I (A)

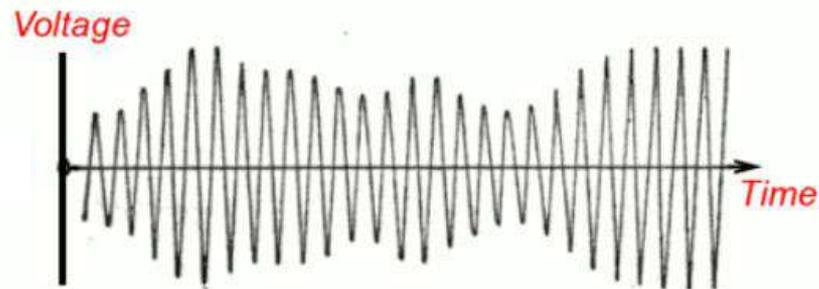


LE SYSTÈME DE DÉTECTION RADIO LE PLUS SIMPLE

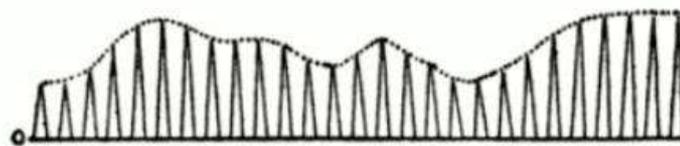
Antenne



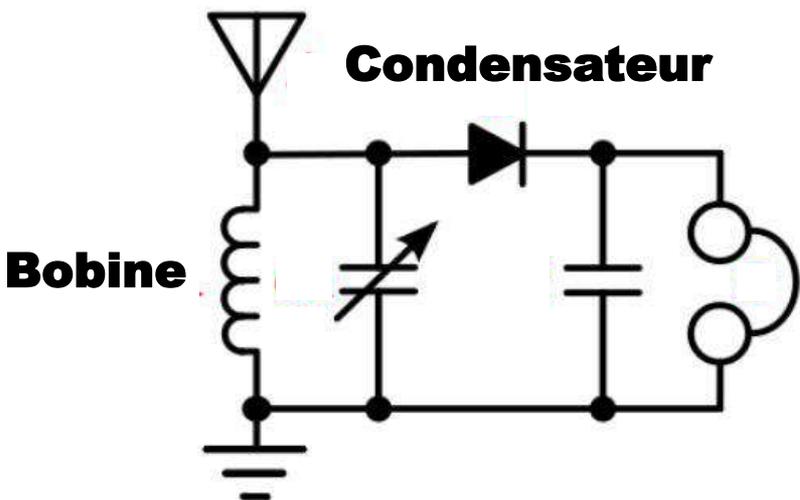
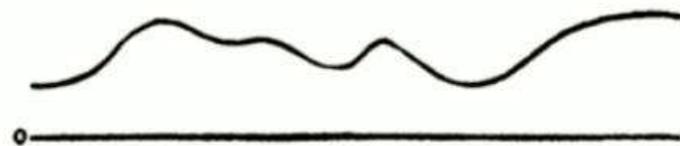
Antenne sans Diode



Antenne avec Diode



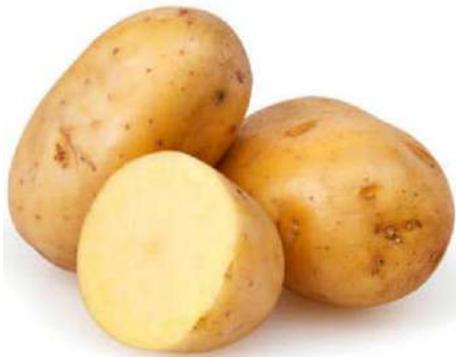
avec Filtre LC et Condensateur



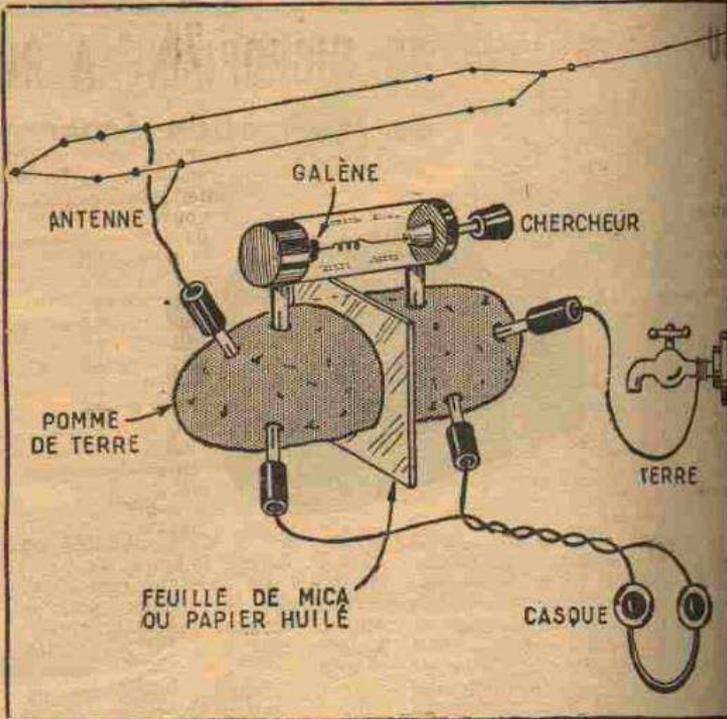
LA RADIO DES TERRIERS

FoxHole Radio





UN ORIGINAL RECEPTEUR A GALÈNE



EMERGENCY COMMUNICATIONS



ON AN EMERGENCY COMMUNICATION IS IMPORTANT AND COMMUNICATIONS PREPAREDNESS SHOULD BE A PART OF YOUR FAMILY ALERT PLAN.

IF ELECTRIC POWER IS OUT—A CRYSTAL SET MAY BE THE ONLY WAY TO KEEP IN TOUCH WITH LATEST NEWS, DISASTER REPORTS AND EMERGENCY INSTRUCTIONS, BECAUSE IT REQUIRES NO BATTERIES OR ELECTRICITY.

THE SIMPLEST RADIO—THE CRYSTAL SET IS COMPOSED OF FEW PARTS AND CAN BE WIRED IN MANY WAYS. THE SET SHOWN ON THIS PAGE WAS MADE FROM:



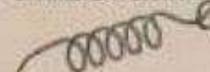
1. A MARLBORO TUBE (SHELLACED) 2 1/2" IN DIAMETER BY 7" LONG, WRAPPED WITH #22 GAUGE WIRE FOR THE TUNING COIL.



2. A STRIP OF COPPER OR BRASS AS THE TUNING COIL.



3. A BENT SAFETY PIN AND RUBBER ERASER...OR A PIECE OF COILED WIRE AS A CATWHISKER DETECTOR.



OR IN PLACE OF THE GALENA CRYSTAL...USE A GERMANIUM DIODE AS A DETECTOR. BUT THIS SET AS MUCH FUN BECAUSE ONE OF THE TRICKS OF BUILDING A CRYSTAL SET IS FINDING A SENSITIVE SPOT ON THE CRYSTAL THAT WILL BRING IN A RARE SIGNAL.

4. A .01 MFD. (MICROFARAD) CONDENSER (OR CAPACITOR WHICH MEANS THE SAME).

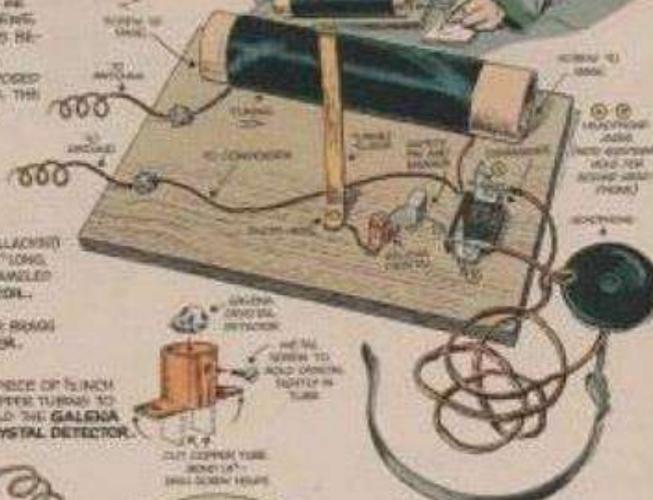
5. 10 NUTS AND 9 SCREWS TO HOLD CONNECTING WIRES AND PARTS IN PLACE ON THE 12" BY 8" PINE MOUNTING BOARD.

6. BRASS OR COPPER SLIPS TO HOLD SIXTY SETS OF EARPHONES.

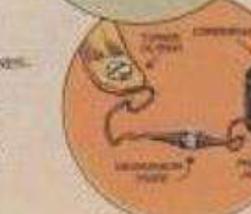
7. AN EARPHONE (ONE FOR EACH LISTENER)...CAN BE FROM A TRANSISTOR RADIO IN SOME CASES.

8. AN ANTENNA—USE A 100-FT. PIECE OF BELL COORD WIRE OR USE YOUR TV ANTENNA. IF YOU USE AN OUTDOOR ANTENNA, BE SURE TO ATTACH INSULATORS AT EACH END AND A LIGHT-WEIGHT ARRESTOR BETWEEN ANTENNA AND SET. MOUNT ANTENNA AS HIGH AS POSSIBLE AND AVOID CONTACT WITH ANY OTHER WIRES.

9. A DIODE—USE A WATER DIODE.



THE ONLY VARIATION IN THE SET IS IN USING A GERMANIUM DIODE IN PLACE OF THE GALENA CRYSTAL. WHEN SOLDERING WIRES TO A GERMANIUM DIODE DON'T HEAT 300 DINGS OR YOU'LL DAMAGE THE DIODE. HOLD WIRES WITH LONG-NEEDED PLIERS WHICH WILL DRAW OFF HEAT.



DON'T GIVE UP IF THE SET DOESN'T WORK AT FIRST. CHECK NEAR (MORNING) ANTENNA, DIODE(S) AND CONNECTIONS. USUALLY THE SET'S O.K. BUT IT'S EASY TO MAKE A SMALL MISTAKE.

LAURENCE
FISHBURNE

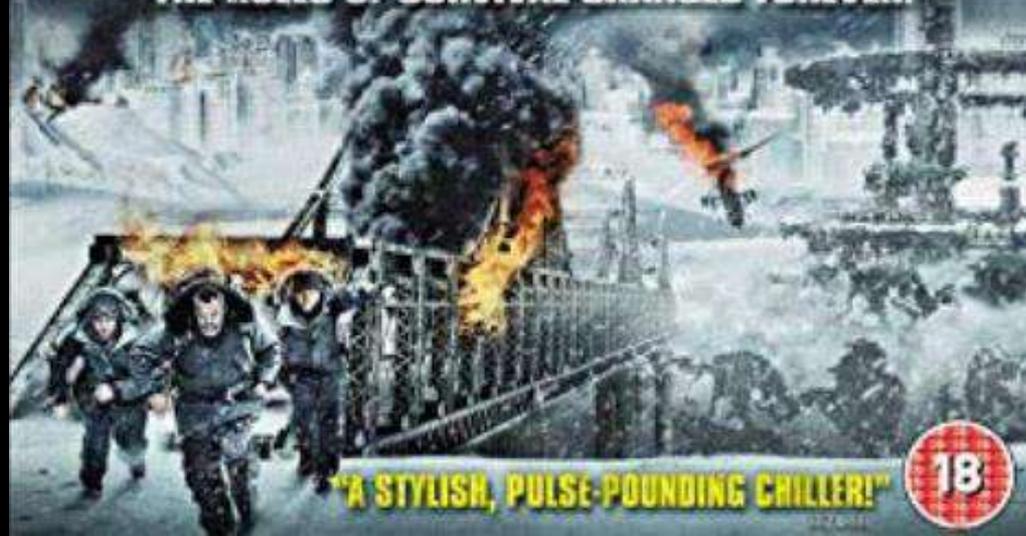
BILL
PAXTON

KEVIN
ZEGERS



THE COLONY

WHEN THE EARTH FROZE,
THE RULES OF SURVIVAL CHANGED FOREVER.

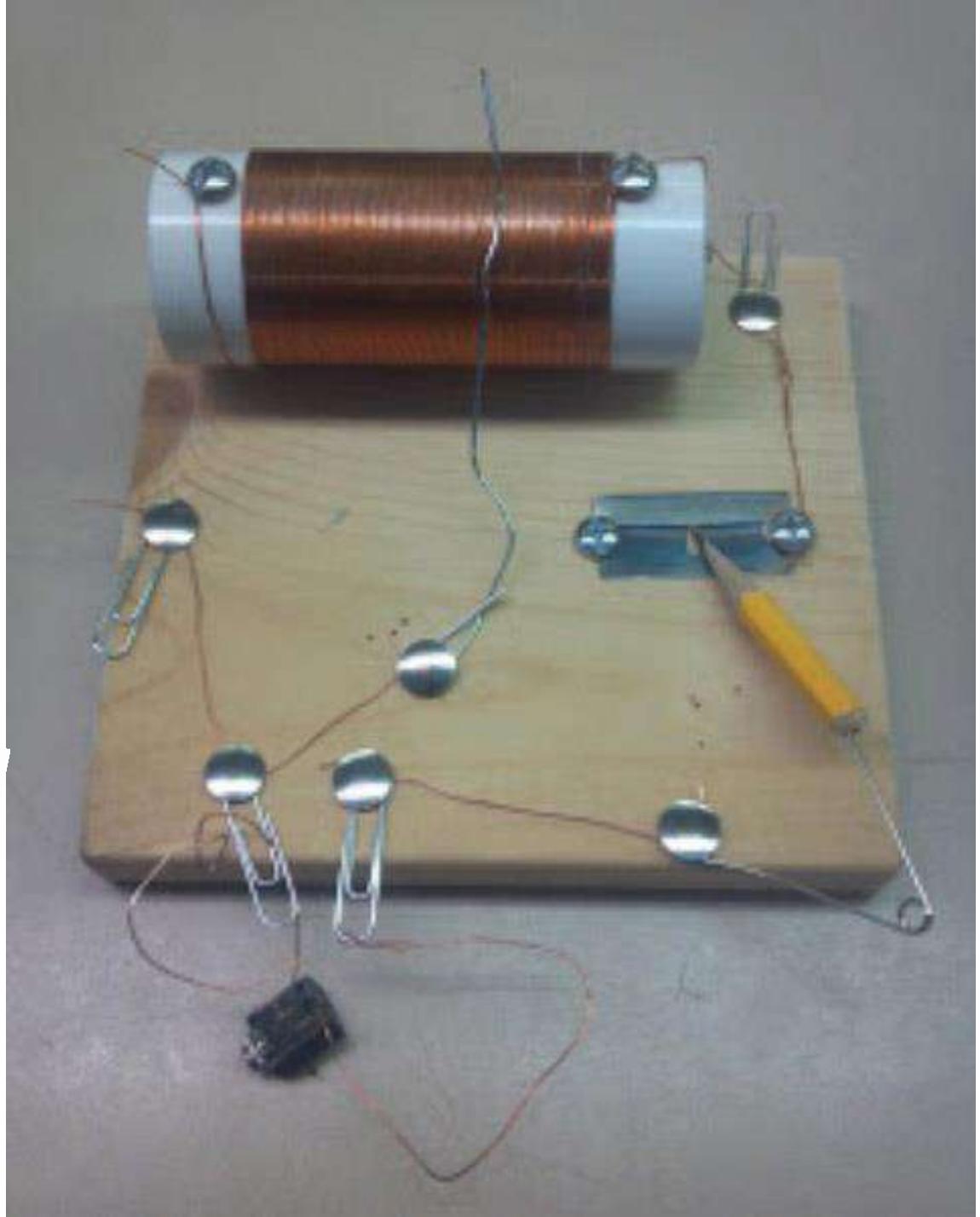


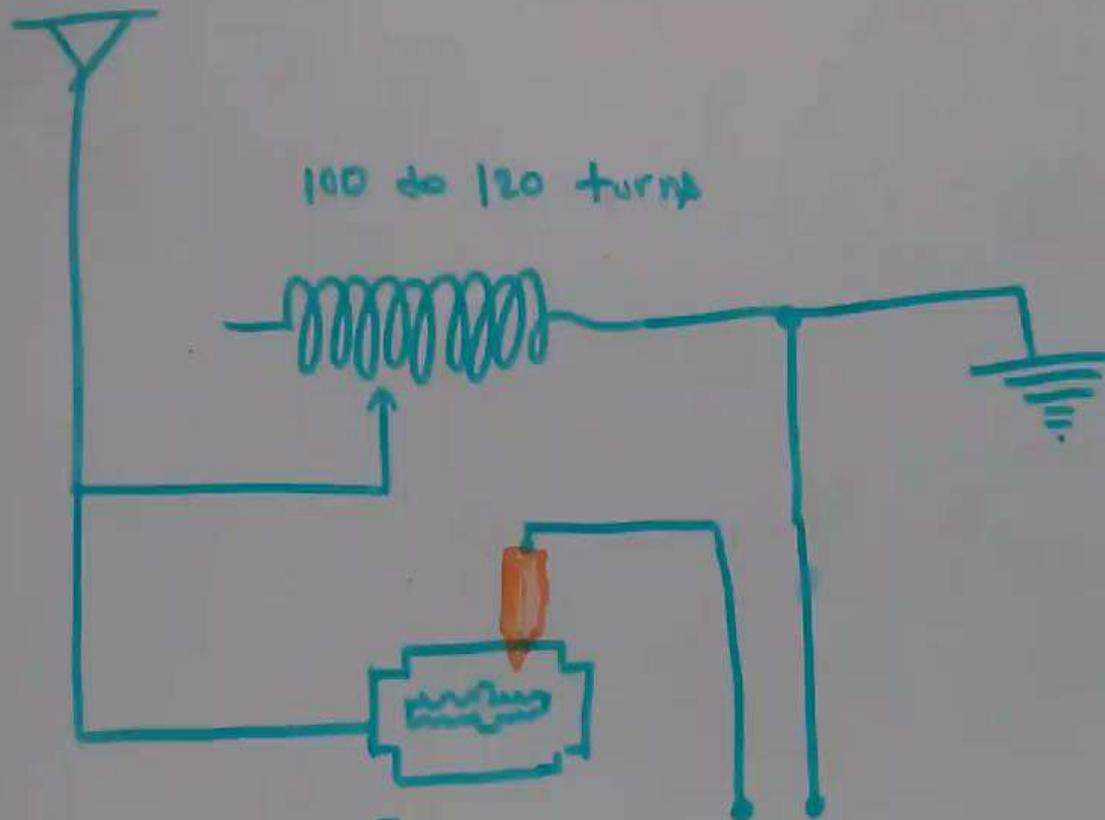
"A STYLISH, PULSE-POUNDING CHILLER!"





Une version fonctionnelle





Blade
(Diode)

Audio out

Foxhole radio

AVEC LA PARABOLE : LE LNB



ANTENNE

RECEPTEUR

ANTENNE 2

AMPLIFICATEUR(S)

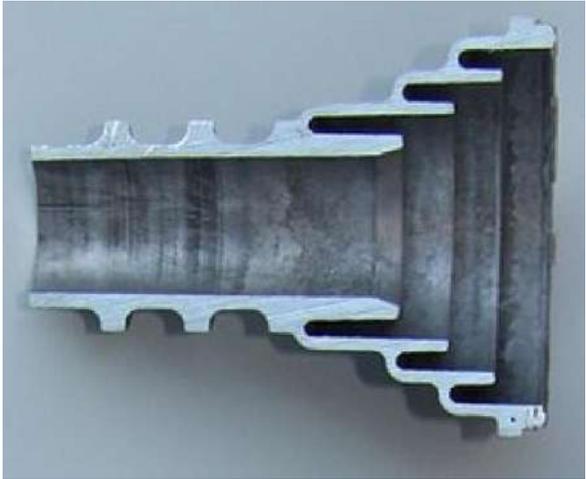
DIVISEUR

VOUS AVEZ DIT LNB ?

LNB Feedhorn



Feedhorn



ANTENNE 2.1
ANTENNE 2.2



Sortie 2.1

Sortie 2.2