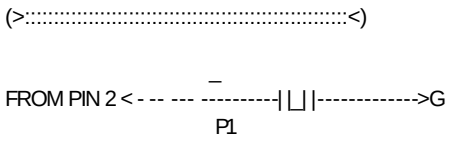
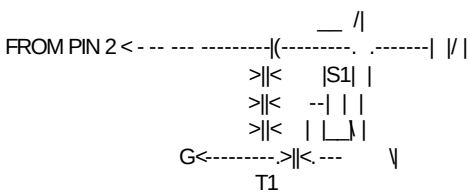


b. Piezoelectric transducer



c. Electromagnetic transducer

Parts List

- U1 - Texas Instruments TCM1506
- T1 - 4000:8 ohm audio transformer
- S1 - 8 ohm speaker
- R1 - 2.2k resistor
- R2 - External variable resistor; adjusts timing frequency
- C1 - .47uF capacitor
- C2 - .1uF capacitor
- C3 - 10uF capacitor
- L1 - Tip
- L2 - Ring
- L1 and L2 are the phone line.

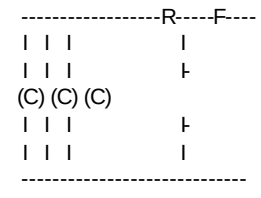
Shift Rate:

This is the formula for determining the shift rate:

$$SR = \frac{1}{(DSR(1/f1)+DSR(1/f2))} = \frac{1}{\frac{128}{1714}+\frac{128}{1500}} = 6\neg\ Hz$$

- DSR = Shift Devider Rate ratio = 128
- f1 = High Output Frequency = 1714
- f2 = Low Output Frequency = 1500

119.The Tron Box by The GREAT Captain Crunch!!



- (C)=capacitor
- F =fuse
- R =resistor
- I,- are wire