

BLIFNAR Parts List

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|---|------------------------------|
| 1 | 270-point experimenter board |
| 1 | 74HC240 integrated circuit |
| 2 | AAA rechargeable batteries |
| 1 | AAA battery holder |
| 1 | 3.4 volt solar cell |
| 4 | 1000 uF capacitors |
| 8 | 1 uF capacitors |
| 8 | LEDs |
| 1 | 1N34A germanium diode |

| | |
|----|---|
| 4 | 1M ohm resistors (brown-black-green) |
| 1 | 100k ohm resistor (brown-black-yellow) |
| 8 | additional resistors of assorted values in the range 500k ohm to 7M ohm |
| 3 | orange wires (3") |
| 10 | red wires (2") |
| 1 | med brown wire (1.5") |
| 6 | short brown wires (1") |

BLIFNAR Construction Sequence

| # | item | location |
|----|------------------|-----------------|
| 1 | 1 uF cap | G2 (-) G3 (+) |
| 2 | 1 uF cap | G4 (-) G5 (+) |
| 3 | 1 uF cap | G6 (-) G7 (+) |
| 4 | 1 uF cap | G8 (-) G9 (+) |
| 5 | 1 uF cap | D10 (-) D9 (+) |
| 6 | 1 uF cap | D8 (-) D7 (+) |
| 7 | 1 uF cap | D6 (-) D5 (+) |
| 8 | 1 uF cap | D4 (-) D3 (+) |
| 9 | germanium diode | C1 (stripe) C2 |
| 10 | 1M resistor | B3 B6 |
| 11 | 1M resistor | B7 B10 |
| 12 | 1M resistor | I3 I4 |
| 13 | 1M resistor | I7 I8 |
| 14 | 1000 uF cap | I13 (-) H15 (+) |
| 15 | 1000 uF cap | I20 (-) H18 (+) |
| 16 | 1000 uF cap | B13 (-) C15 (+) |
| 17 | 1000 uF cap | B20 (-) C18 (+) |
| 18 | med brown wire | G1 D2 |
| 19 | short brown wire | A14 X14 |
| 20 | short brown wire | A19 X19 |
| 21 | short brown wire | E21 F20 |
| 22 | short brown wire | J19 Y19 |
| 23 | short brown wire | J14 Y14 |
| 24 | short brown wire | J10 Y10 |
| 25 | red wire | J3 E11 |
| 26 | red wire | D11 B16 |
| 27 | red wire | A7 F13 |
| 28 | red wire | I9 E12 |
| 29 | red wire | J7 J16 |
| 30 | red wire | J5 J17 |

| # | item | location |
|----|---|-----------------|
| 31 | red wire | X23 Y23 |
| 32 | red wire | A3 A13 |
| 33 | red wire | B12 A17 |
| 34 | red wire | A9 A20 |
| 35 | orange wire | A5 A21 |
| 36 | LED | D15 (-) D16 (+) |
| 37 | LED | E14 (-) E15 (+) |
| 38 | LED | F14 (-) F15 (+) |
| 39 | LED | G15 (-) G16 (+) |
| 40 | LED | D17 (+) D18 (-) |
| 41 | LED | E18 (+) E19 (-) |
| 42 | LED | F18 (+) F19 (-) |
| 43 | LED | G17 (+) G18 (-) |
| 44 | 100k resistor | A2 X2 |
| 45 | 8 assorted resistors | A4 X4 |
| | | A6 X5 |
| | | A8 X8 |
| | | A10 X10 |
| | | J2 Y2 |
| | | J4 Y4 |
| | | J6 Y7 |
| | | J8 Y8 |
| 46 | Hot glue the battery pack to the left end of the experimenter board. Connect the black wire to Y3 and the red wire to D1. | |
| 47 | Solder orange wires to solar cell, run wires thru holes on the left end, and connect the pos lead to B2 and the neg lead to Y1. | |
| 48 | Add batteries. | |