Contents of Kit #10

Motor Parts (Kit #8)

1. Optointerrupter
2. Hall effect IC
3. Heavy duty reed switch (rated 1A @ 110V DC)
4. PNP power Darlington transistor
5. Resistor 270 Ohm
6. Resistor 4.7 K
7. Spool of magnet wire (50 ft or more of 27 gauge insulated copper wire)
8. 4 magnets with either South (letter "S") or North (dimple) pole marked
9. Glossy magnet labels
10. Heavy duty board (approx. 5" x 6") with stands position color marks
11. Electromagnet stand (marked with green star)
12. Rotor stands (marked with blue and silver stars)
13. Universal stand for the Hall effect switch / reed switch
14. Self sticking felt pad
15. Square wooden stand for the optointerrupter
16. Rotor core with 4 flat surfaces
17. Optointerrupter disk
18. 2 sequins
19. 4" precut nail with prewound tape for the electromagnet
20. 2 caps with a center hole
21. T-pin
22. Round wooden rotor insert
23. Pushpin
24. Rubber plug that allows you to attach disks, propellers, etc.
25. Super glue
26. Piece of sandpaper
27. Battery holder
28. Jumper wire (to experiment with 4 different voltages)
29. 6 ft of hook-up wire (1 piece or precut)
30. Capacitor*
31. ZNR surge absorber
32. Rubber band

* Ceramic disk capacitor. Typical capacitance: 0.047-0.1μf; maximum voltage: 25-50V.

*** Future motor development may result in substitution of some parts for improvement of motor parameters ***
Switch Parts

1. Rotary switch, 3 poles per layer, 4 positions, 2 layers
2. Bracket
3. Knob
4. Dial
5. Washer, 1-1/4” OD
6. 2 washers, 13/16” OD
7. 2 washers, 3/8” OD
8. 3 hex nuts, 6-32
9. 2 flat head screws, 6-32, 5/16” LG
10. Pan head screw, 6-32, 1/4” LG

RPM Measurement Kit #1

Advanced multimeter + Assembled attachment
**Generator Kit**

1. RF-520C-17410 precision motor
2. Bracket
3. Cable tie
4. Super bright clear red LED
5. Green diffused LED
6. Double-sided foam circles
7. 2 heat shrink tubes

Or

1. RF-500TB-12560 precision motor
2. Bracket
3. Cable tie
4. Super bright clear red LED
5. Green diffused LED
6. Double-sided foam circles

**Solar Power Module**

1. Solar panel, 6 V 270 mA
2. Bracket with double sided tape
3. Schottky diode
4. Switch
5. Washer, 3/8” OD
6. Hex nut, 6-32
7. Flat head screw, 6-32, 5/16” LG
8. 2 pieces of 9” hook-up wire
9. 1 piece of 13” hook-up wire (not shown)
Color Mixing Kit

1. 32 preprinted colored disks
2. 16 empty templates
3. Double sided foam mounting dots

Variable speed control parts

1. Outer stand
2. Inner stand
3. Magnet
4. Extra heavy duty reed switch

Propeller

5” propeller

All assembly instructions on CD