

MANUAL

the author's famous "slot saucer" of the 1950s.

MINISLOT SAUCER

For small field FF fun, try this ultra-simple electric slot saucer. Uses an inexpensive HiLine power system.

Powered by a HiLine Mini-6 motor, this 38-year-old design will draw interested attention at any flying site.

The slot saucer is perhaps one of my most famous designs, but no mention of it would be complete without acknowledging the fact that, although I invented it, Fran McElwee secured its place in history. Since the '60s, his larger radio controlled versions have been stealing the show wherever they have been flown.

Minislot is built from a sheet of light-weight polystyrene bubble foam and 1/32 and 1/16 balsa glued together with thick UFO CA glue, which works great and won't melt foam.

There is no pretense of an airfoil section, and except for a purely optional rudder tab, no control surfaces. Balance and flight trim is achieved by moving the batteries as needed.

The Minislot Saucer must be slightly dished to secure recovery coupling. Trim a curve into the last third of the central stiffening spine to raise the trailing edge of the saucer 1/4 inch.

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Skip Ruff took this shot of his dad, Gordon, launching the designer's Minislot Saucer. Skip added the landing gear for flying from the famous FF field near his home in Taft, California.

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The underbelly fin exists solely to protect the prop and motor. You can leave it off or install the two-wheel landing gear devised by test pilot Skip Ruff for flying over the gravel that passes for model flying sites in California.

The motor is mounted with two 1/16x 1/4 balsa legs which, with the Mini-6's fiberglass shaft carrier, are stuck to the 1/32 balsa base with one small drop of CA each. In the event of a crunch, the wood will split off without damage to the motor. The above-center thrustline needs 1 to 1-1/2 degrees upthrust.

The three-cell 110-mAH battery pack that came with the Mini-6 works great, but I fly from a small field and wanted less duration and more pizzazz. Dick Henderson had sent me four tiny 50-mAH cells; I used them with good results in a simple battery holder. NiCd manufacturers advise against soldering cells because excessive heat can ruin them. While most of us seem to get away with soldering larger cells, a holder makes more sense for the very small cells as they have little capacity to dissipate heat. (Commercial packs are assembled with a spot welding technique that imposes virtually no heat on the cells' interior.)

Stick a small piece of double-sided tape to the battery pack or tube and use it to shift the pack fore and aft and sideways until the saucer glides with about a 5:1 mush and a barely perceptible left turn. The ideal adjustment is climbing left-hand circles a hundred feet or so in diameter. When you are satisfied you have the balance point nailed down, replace the tape with a couple drops of CA.

Wiring hookup is total simplicity. Hooks bent into the tinned positive leads serve as a switch. Recharge is via a couple of color-coded alligator clips from a pocket battery pack. I use a charging pack with one more cell than the flight pack and leave the clips on until the pack being charged is just perceptibly warm. Bench charging at .5 amp for 3-5 minutes will pack in a bit more duration. **MB**