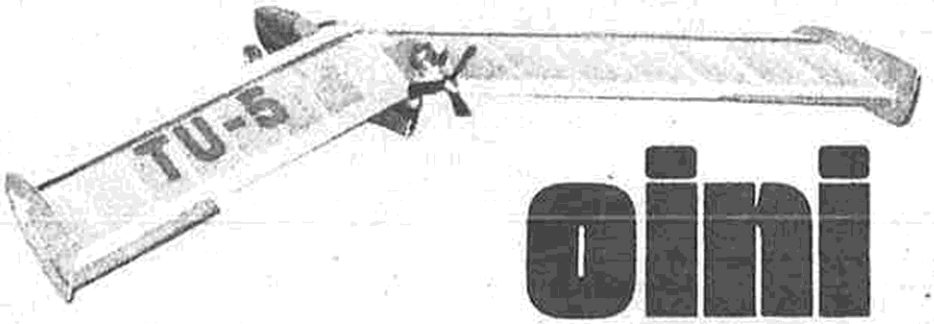

Oini

WANT A sports free-flight model with a difference? One that will turn the heads on the flying field? Make people say 'that will never fly' and prove them wrong? Yes? Then *Oini* is for you! Different it is too with its pusher-engine, tail-less configuration, while the swept back wings are devoid of such stability aiding features of dihedral and washout. Working on the principle of 'what isn't there can't take long to build or cost very much', *Oini* was designed purely as a fun aircraft – one to take out and fly when other forms of flying are becoming a little too serious . . . fun is what this hobby is all about!

Although other engines may be fitted, the Pee Wee is particularly suitable as being a reed-induction motor, it may be run 'backwards' with a conventional propeller – using other engines of around 0.5 c.c. capacity you will probably need a pusher propeller.

Construction is not difficult, although it is perhaps out of the absolute beginner category. The wings must be built true and warp free, and be sure to use a P.V.A. type of adhesive to prevent the 1/32 in. sheeting from being distorted by shrinkage. Ribs are best made the 'sandwich' method as shown. Cut out two templates from 1/8 in. ply d bend up a U-shaped piece of 16 s.w.g. piano wi Carefully drill templates to match the arms of the ' Sandwich 11 'blanks' of 1/16 in. balsa between these templates, insert the wire holding piece, and rake the templates to match the sweep-back of the spar. Sand the blanks to shape, file out the spar and leading edge slots, then repeat for the opposite wing panel.

Cut the trailing edges to length, slot to accept the ribs, then pin over the plan. Cut out the main spars and insert the ribs – do not glue. Slot the ribs into the trailing edge, then line up the main spar to match the plan – packing it up 1/16 in. to suit the camber of the airfoil. Apply P.V.A. glue to the spar/rib joints when satisfied that the whole assembly is true. Allow to set, then add the leading edge. While still pinned to the board, add the upper 1/32 in. sheeting plus the 1/16 in. sheet in-fill at the centre section area and the 1/8 in. sheet gussets where shown. When dry, remove from board and add the bottom sheeting/in-fill.

As soon as both panels have been completed and the insert for the elevens made, they may be joined, ensuring that there is a 1/8 in. wide slot between the spar and T.E. to suit the motor pylon.

Now for the fuselage – what there is of it! Build this by first cutting ou the fuselage sides o the nes indicated, and the thre formers. Bind an epox the noseleg to former F1, nd glue the 1/16 in sheet ing seat reinforcement in position. Lay one fuselage side on the board, and glue F1 and F2 in position, making sure that they are square. When dry, add the other fuselage side. Next, insert F3 and draw the fuselage ends together around the sternpost - make sure that the curved portion is symmetrical.

Bend up the main undercarriage, and solder together as shown. Glue the ply plate behind F3, and epoxy the 1/4 in. square u e support in place. The top and bottom blocks to the forward fuselage are now added, followed by the nose piece – noting that this is laminated from three pieces of 1/8 in. sheet, the centre being cut away to act as a weight box. Sheet the fuselage underside, then bind and epoxy the u/c to the 1/8 in. square brace, using a tin plate clip and woodscrews at the forward position. Sand smooth all over, then add the wing dowels and cockpit canopy.

Cover the wings with lightweight tissue, but before doping, add the tip plates – this is important as otherwise the dope will distort the end ribs. Likewise cover the fuselage in lightweight tissue, and remember to use coloured tissue, not colour dope, for contrast and trim. Apply three to four coats of 50 per cent thinned dope. Cut out the elevons, cover with tissue, and attach to the wings with 'hinges' epoxied in place.

Next cut out the 1/8 in. ply engine pylon and ma up the engine mount, then glue between the wi halves – using epoxy adhes ve for all these oin Apply two coats of sanding sealer, rub down th fuel-proof the entire model.

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The flying procedure is just a little different from 'normal' sportsters. Bend the elevons up to the position indicated, then test glide. Trim for a fast, flat, glide with a slight turn to the right – use elevon movement to achieve this state. Forget those 'start with low power flights' instruction for this model – just check that the engine is 'pushing' and that the propeller is fitted backwards then lean out the needle to achieve full power, and off you go!

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