



The start of a model aeroplane race. This is the time you reap the reward of looking after your model.

*You'll get better flying  
from your model plane  
if you follow these  
expert hints*

## Looking After Your Model Plane

**M**ODEL planes are very simple to build at home, but for those who would rather buy them, a wide range of various types is obtainable. The most popular is the "stick" type with a single surfaced, cambered wing, just like those in the photograph. For the fellow who is taking up model plane flying these are the best to buy, as they are cheap and strong, almost to the point of being unbreakable—just the thing with which to learn the knack of flying and the care of model planes generally.

And, having learnt to handle models of this type, it is an easy step to more ambitious fuselage models.

Model planes of all types are liable to get broken

or warped if left lying about. The ideal parking place for a plane is on top of a cupboard in a fairly warm room. Here it will be well out of harm's way, and away from its greatest enemy—damp. But cupboard tops are dusty places, so the model should be covered with sheets of paper.

An alternative to this method of storing is to fix a number of hooks in the wall, dismantle the model, and hang the various parts on these. They will then be quite free from strain.

Rubber motors should be very carefully looked after. Keep the strands well lubricated with the correct mixture, which can be bought at a model plane shop. Another way of prolonging the life

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of the elastic is to fit the motor hooks with a short piece of bicycle valve rubber. This will prevent the elastic being cut.

Keep the propeller bearing well oiled, and make sure that it is not bent. And always keep the undercarriage and wheels in correct trim, for if they are out of true they will have a bad effect on take-offs, landings, and also on the flight.

**I**F rain comes on when you are out flying and the model gets wet, go over all the surfaces with a piece of blotting paper. This will dry off all the water without putting the fabric covering to any stress.

Model planes should be flown well away from trees, and in good weather. A moderate wind is not likely to harm them, but if the wind is gusty or strong, and mists and rain are about, keep the model safe in the warm at home.

Before flying a new model, whether home-made or bought, you should test it to see that the wings are in the right position and properly adjusted. Do this by gliding flights. With the elastic motor unwound, hold the model by the body well above your head and push it gently into the wind.

If the model is inclined to dive towards the ground, move the wing slightly forward. If it tries to climb, move the wing slightly backward. When the position of the wing at which the model makes the longest glide has been found, make a pencil mark on the body of the plane so that you can always be sure of having the wing in the right place.

**B**UGHT models are usually fitted with propellers winding up in a clockwise direction. The propeller tends to twist the model round in the opposite direction during flight. This is known as propeller torque, and can be overcome by bending the rear edge of the left-hand tailplane slightly downwards, and the rear edge of the right-hand plane slightly upwards. Only a few degrees of angle are necessary, so be careful not to overdo it.

To get the best out of a model plane you must launch it correctly. Hold it well above your head, right hand holding the body or "stick," and left hand holding the propeller, and thrust it forward into the wind. Your propeller hand must not be in front of the undercarriage, but slightly to the left.

After a few launches make a note of the angle at which the model commences to climb. Then, in future, launch it at that angle or it will only waste power and time in lifting its nose to the climbing angle.

You will notice in the photo that the four climbing planes are all at about the same angle, which shows

the owners have practised launching until they are perfect. The plane on its side has too much propeller torque, and the one that has flattened out has not been launched fast enough.

You can only find the correct launching speed by practice, and this is best done by gliding with the motor unwound. If you glide it too fast the model will rise from your hand and then begin to sink. If too slowly it will drop at first, then straighten out and glide forward. You have got the right speed when the model leaves your hand and, without rising, touches the ground as far away as possible. Always launch a model into the wind, and never with the wind.

When trying out a new plane give it a little rudder to the right. Or, if it is fitted with a propeller winding up anti-clockwise, a little rudder to the left. With the model in front of you and facing forward, bend the rear edge of the rudder to the necessary side, thereby causing a ruddering effect that will send the model round in circles.

**T**HIS rudder effect should be adjusted later so that the model comes round into the wind when the power runs out and then glides earthwards up-wind. By doing this the model will have a much slower ground landing speed, and will be less liable to damage.

When a fairly strong wind is blowing, adding an extra two strands of elastic to the motor will give more speed and enable the model to fight the stronger air currents. But when this is done the motor must not be wound for as many turns as usual. If you add, say, two strands to the original eight, reduce the number of turns that you ordinarily give to the motor by a quarter—that is, instead of giving it six hundred turns, stop at four hundred and fifty.

Until you get to know that the motor is fully wound by the "feel" of the propeller, count all the turns carefully.

If there is a reasonably smooth surface available, any model in good trim should be able to take off under its own power. In fact, if the model is a very heavy one, it should *always* be launched from the ground.

The best surface from which to launch a model plane on a rise-off-ground flight is a smooth roadway, or a well-mown lawn. Make sure the model's undercarriage is tall enough to hold the propeller clear of the ground even when the tail is lifted to make the fuselage horizontal—the position of the model at the moment of taking-off—and that the landing-wheels revolve freely. Stand just behind the plane and hold the fuselage with your right hand while using the left to prevent the propeller revolving until the moment of launching.