

## A Space Rocket



## With a cabin for the crew

Some lucky youngster will now be able to travel to the stars with this fun turning project. Ok, you will need a scroll saw or fretsaw to make the fins for the rocket but otherwise it is all turning.

1. Cut 2 slots in one end of a spindle blank. I used oak but only because it was handy. The slots should be wide enough to accommodate the thickness of the fins.



2. Using 4 mm thick plywood or similar cut out the 2 shapes for the fins. Make slots in the middle of each fin so that one can slot into the other to form a cross

3. The grey column at the end of each fin is made from a blank constructed using 2 strips of oak or beech separated by spacers 4 mm thick. (See Photo)



John Hawkswell







4. Each column is then turned between centres and attached to the plywood fins as shown in the photo. Note the tenons precut at the end of the fins match the spaces formed in the column. By using the same plywood for both the fins and the spacers in step 3 you will ensure a perfect fit. Paint before assembly.



5. After turning the blank to a cylinder make a spigot at both ends. You may wish to glue some sacrificial wood at the tail fin end to avoid shortening the slot length. Put the blank in a scroll chuck and separate into 2 sections, A and B. Section A will make the main body and Section B will make the nose cone.

A separate piece of wood is required to make the exhaust section C of the rocket. During final assembly of the parts it will be glued to the main body using a 15 mm diameter spigot. A recess in the end of the rocket body will need to be formed to accommodate this.



6. Mount Section A in the chuck and create a recess to form the crew cabin area. Make a recess in the top as shown in the photo on which the nose cone will be fitted. Drill a hole in the centre to take a 6 mm dowel. This will be used to secure a crew member during "flight"



7. Section B, reserved for the nose cone is mounted in the chuck. The first job is to to form a lip to allow the nose to fit the recess in the main body of the rocket .

The nose is secured in flight by means of 2 earth magnets, one on the rim of the nose and the other on the rim of the main rocket body, these lock the nose and rocket body together.

Alignment of the magnets is ensured by means of a locating pin and matching hole (see photo).

To form the window or porthole a 20 mm wide hole is drilled through the wall of the nose section and some clear plastic is glued on the inside. A groove formed inside helps locate the piece of plastic.



Do not forget to make some crew. Here an alien surveys the scene from the rocket cabin.



And the earthling wonders what to make of the new arrival. A hole is drilled in the base of each figure which locates onto the pin on the floor of the cabin.





Bon Voyage!

The cabin also accommodates a (battery operated !) tea light