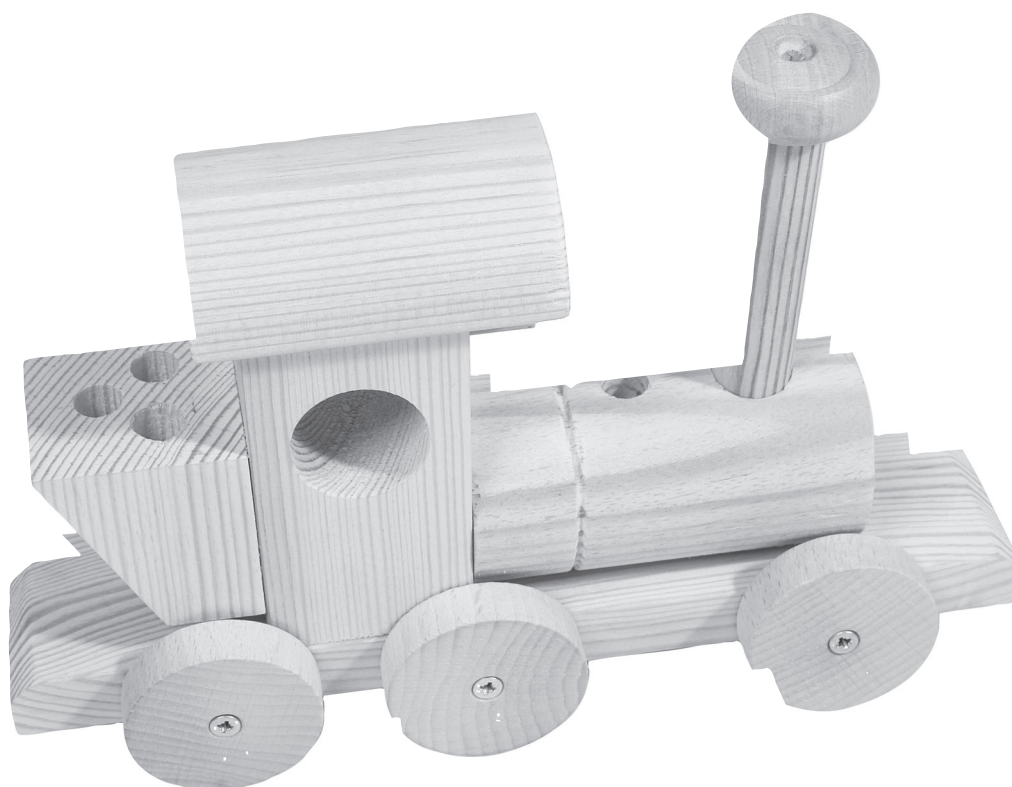


# OPITEC

## Hobbyfix

### 1 0 3 . 5 5 7

## Desktop Locomotive



#### Parts list:

1x Pine strip	15 x 40 x 200 mm
1x Pine strip	40 x 40 x 75 mm
1x Pine block	40 x 40 x 40 mm
1x Pine dowel	ø15 x 100 mm
1x Pine dowel	ø40 x 75 mm
1x Pine dowel	ø50 x 100 mm
1x Beech dowel	ø3 x 50 mm
6x Wooden wheels	ø40 x 10 mm
1x Profile wheels	ø30 x 11 mm
6x Screws	3 x 20 mm

#### Necessary tools and equipment:

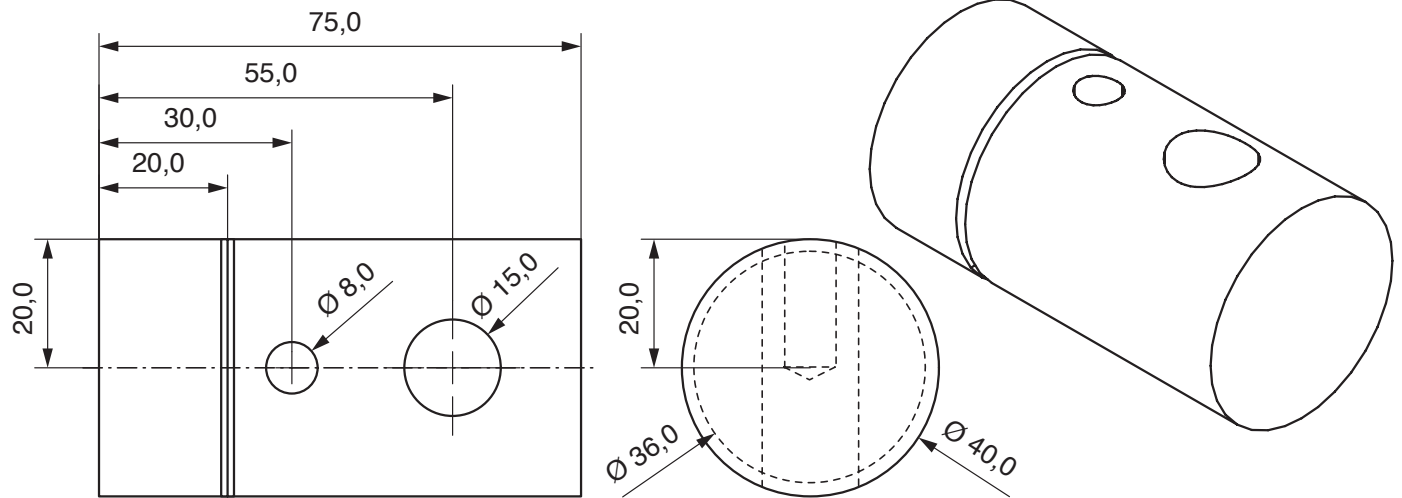
Mitre saw and block  
Pillar or electric drill and stand  
Drill bits 3/8/15/20mm dia.  
Glasspaper, rasp, woodfile  
Chisel  
Wood glue  
Crosshead screwdriver

#### Please Note

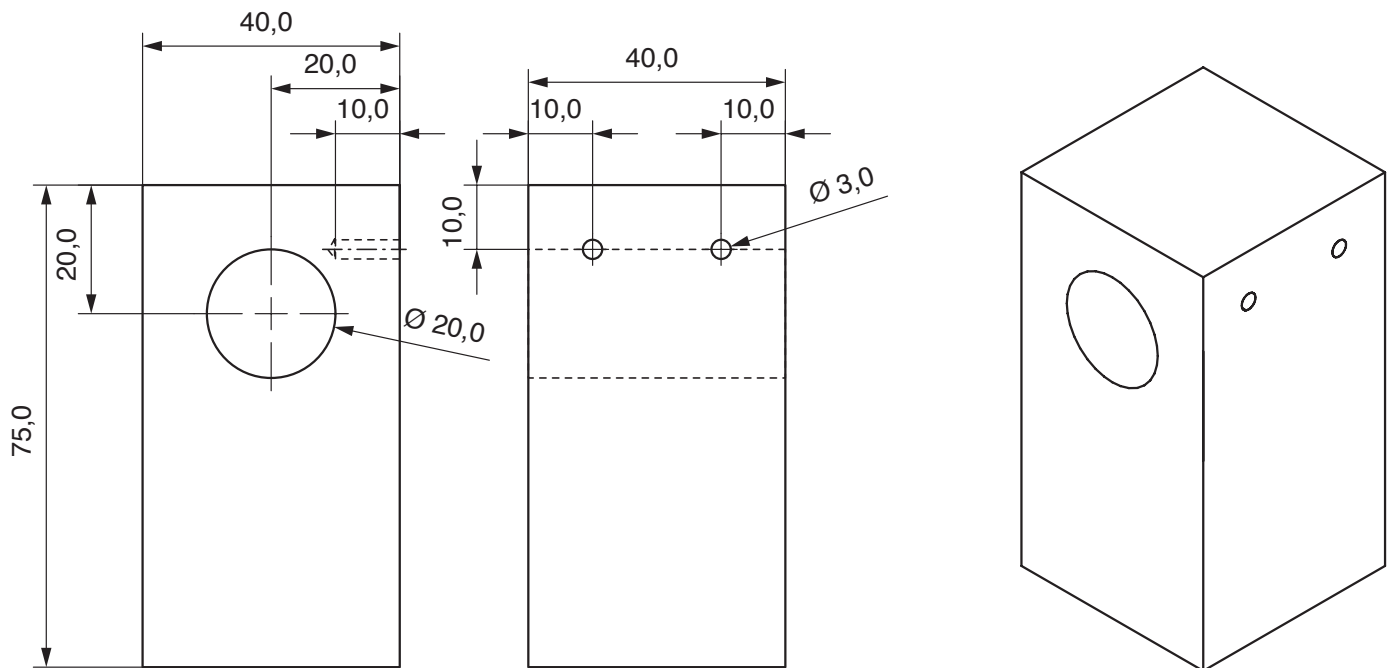
The OPITEC range of projects is not intended as play toys for young children. They are teaching aids for young people learning the skills of Craft, Design and Technology. These projects should only be undertaken and tested with the guidance of a fully qualified adult. The finished projects are not suitable to give to children under 3 years old. Some parts can be swallowed. Danger of suffocation!

## Working method:

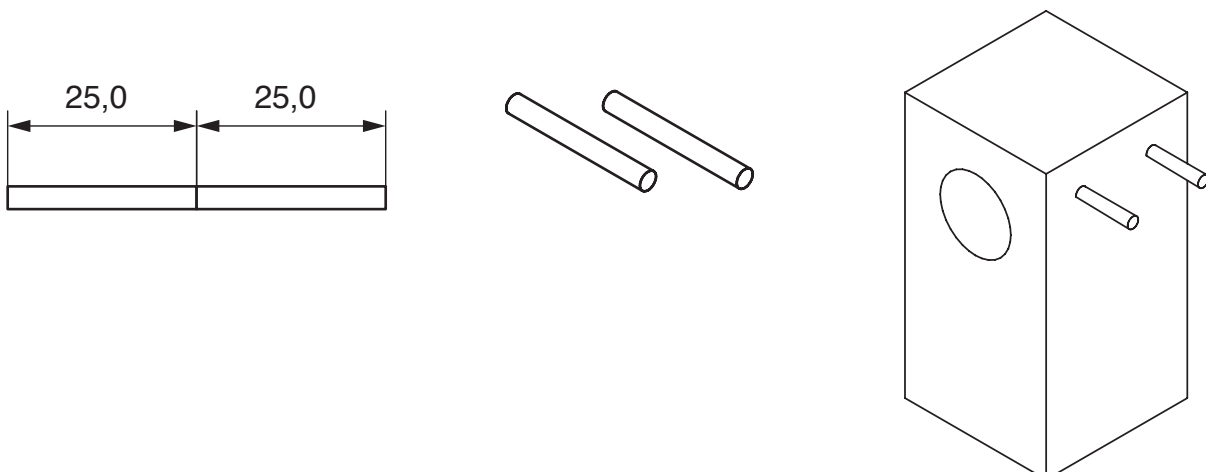
1. Mark out and drill the dowel 40dia x 75mm with 2 holes, one 8mm dia, and another 15mm dia, both 20mm deep. Use a triangular file to make the 2 mm groove in the boiler as shown. Sand smooth .



2. Use a normal or Forstner drill bit to make the 20mm hole through the pine block 40 x 40 x 75mm. Then turn the block through 90 degrees, mark out and drill the two 3mm dia holes, each 10mm deep, this is the drivers cabin.



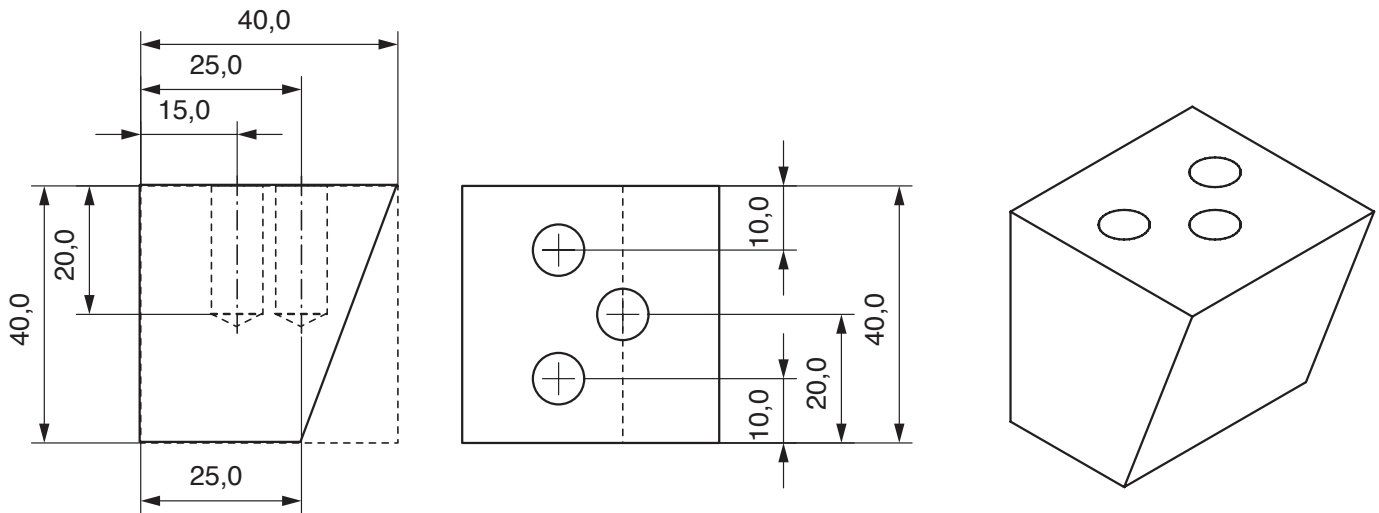
3. Saw the dowel 3mm x 50mm in half and glue them in the 3mm holes in the drivers cabin.



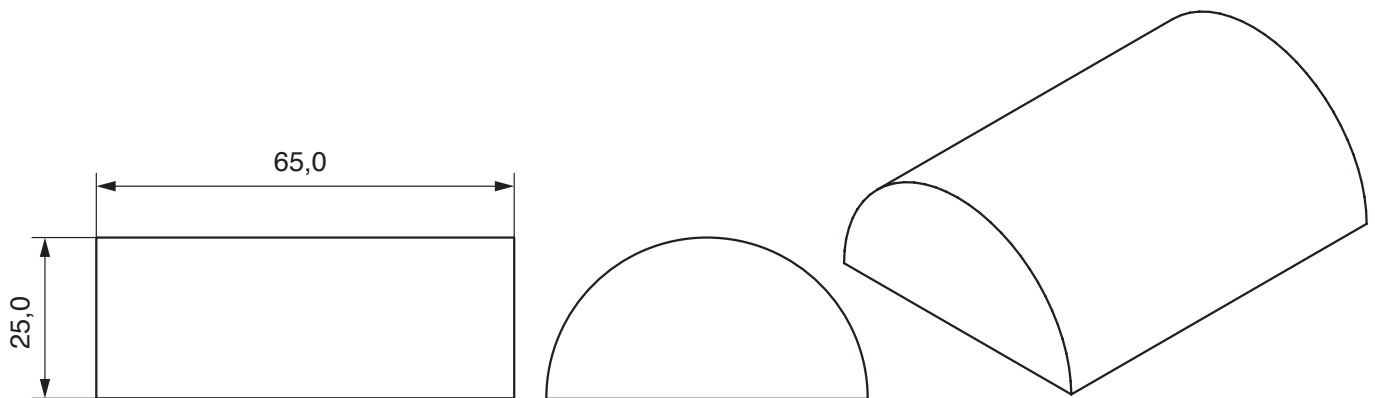
4. Mark out and drill the 3 x 8mm dia blind holes 20mm deep  
Chamfer the back of the block as shown !)

**Note:** Check that you are about to chamfer the correct side !!!!!

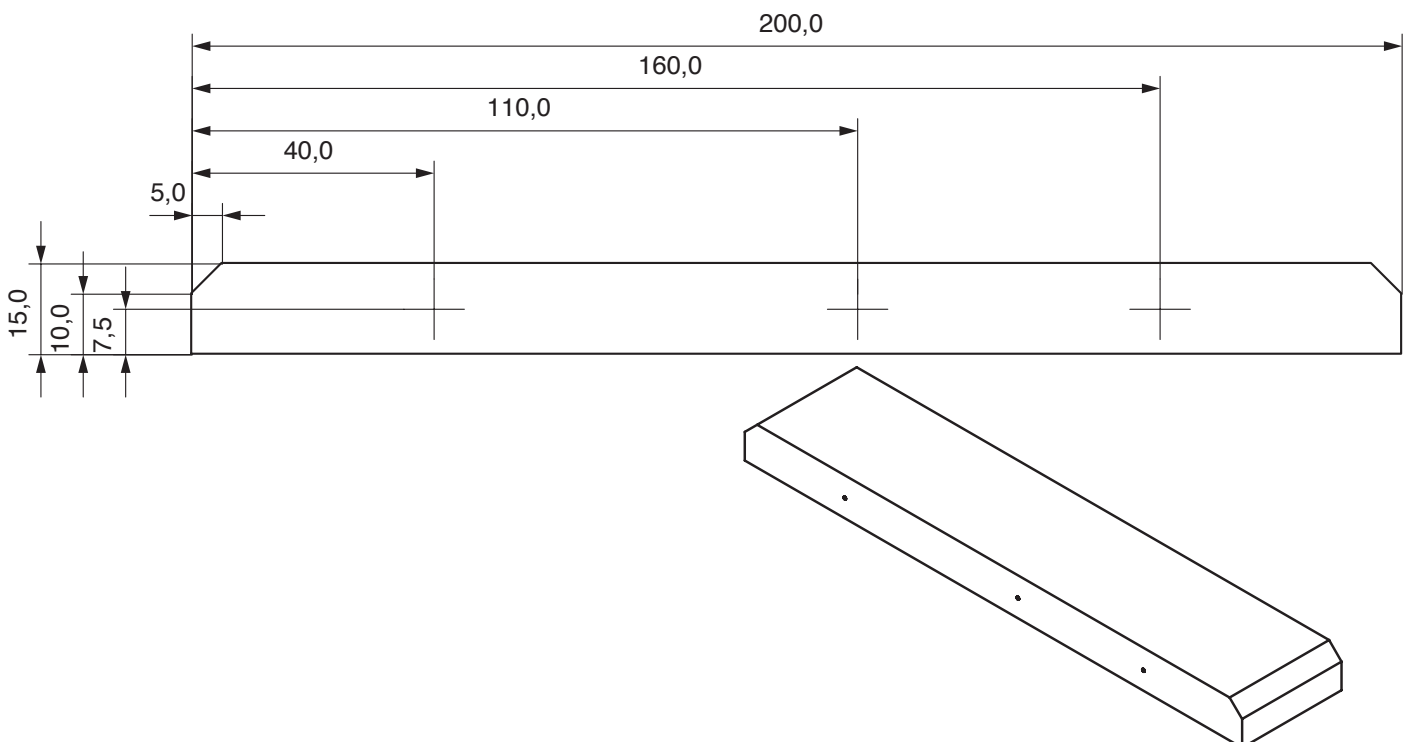
Coal tender and pencil holder, sand to finish.



5. The roof is made from the dowel 50mm dia x 100 cut in half. Use a saw or chisel.  
Sand and shorten to 65mm long.

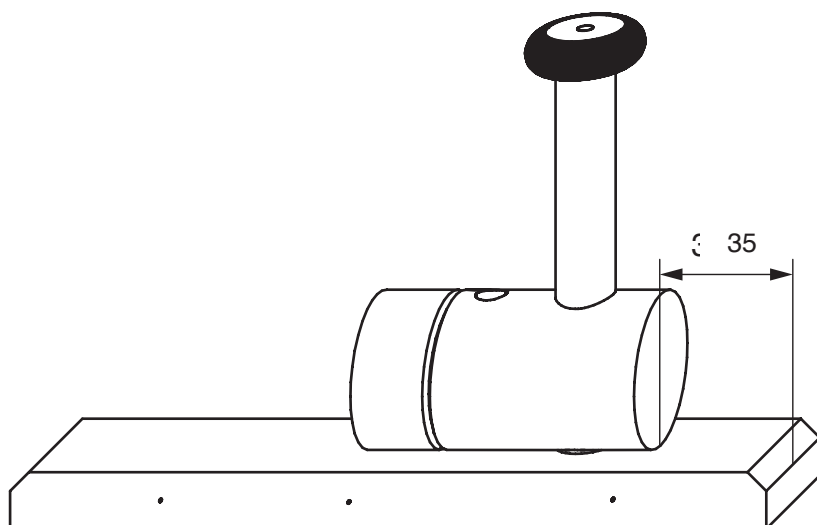


6. The base 15 x 40 x 200mm has a 5mm chamfer at one end.  
Mark out and use a pointed hole maker for the positions of the wheels.



7. Glue the dowel 15dia. x 100mm in the 15mm dia hole in the boiler  
Then glue the boiler on the base 35mm from the end  
(The boiler cannot rock as the chimney goes all the way through)

**Note:** Make sure the wheel positions are correct! Glue the profile wheel on top of the chimney!



8. Glue the drivers cabin on base and the roof on top with a 10mm overhang front and back.
9. Glue the tender/ pencil holder on the back. Screw the wheels in place.

