

MATERIALS FINAL

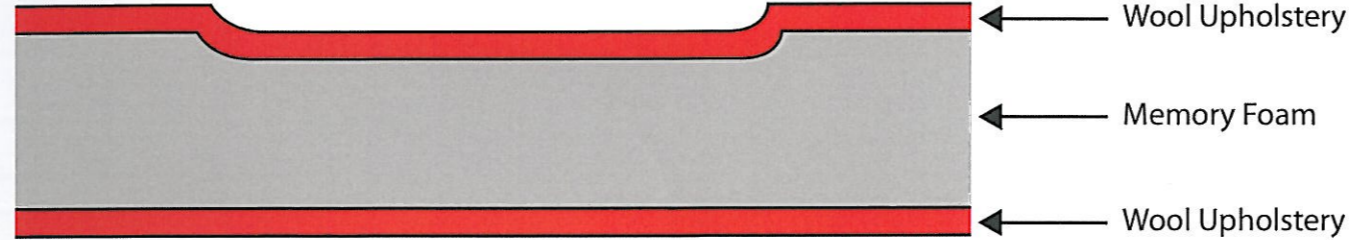
Perspex is a suitable framing material for this seat as it is robust and will support the weight of an above average person. However, if dense perspex were used, the whole unit seat will weigh around 18 Kg. Given that it needs to be lifted into the bookshelf, this is too heavy. The materials have therefore been revised and the use of hollow perspex with a hollow honey comb structure has been adopted. This will reduce the weight down to 9 Kg, which makes the unit far easier to lift and move. This means the user will be able to shift it without damaging his/her back (making it ergonomic). It is suitable for the existing apartment space for a number of reasons:

- It is glossy so it will contrast well with the natural textures of the flooring in the apartment.
- It will not scratch the floor as the sofa has a large surface area and no sharp points.
- It can easily be coloured to match the red and white colour scheme of the apartment.

← Upholstery Wool

← Perspex

Cross-section through cushion



The thin red cushioning made from dense memory foam (as described in the research) will soften the aesthetic and increase comfort.

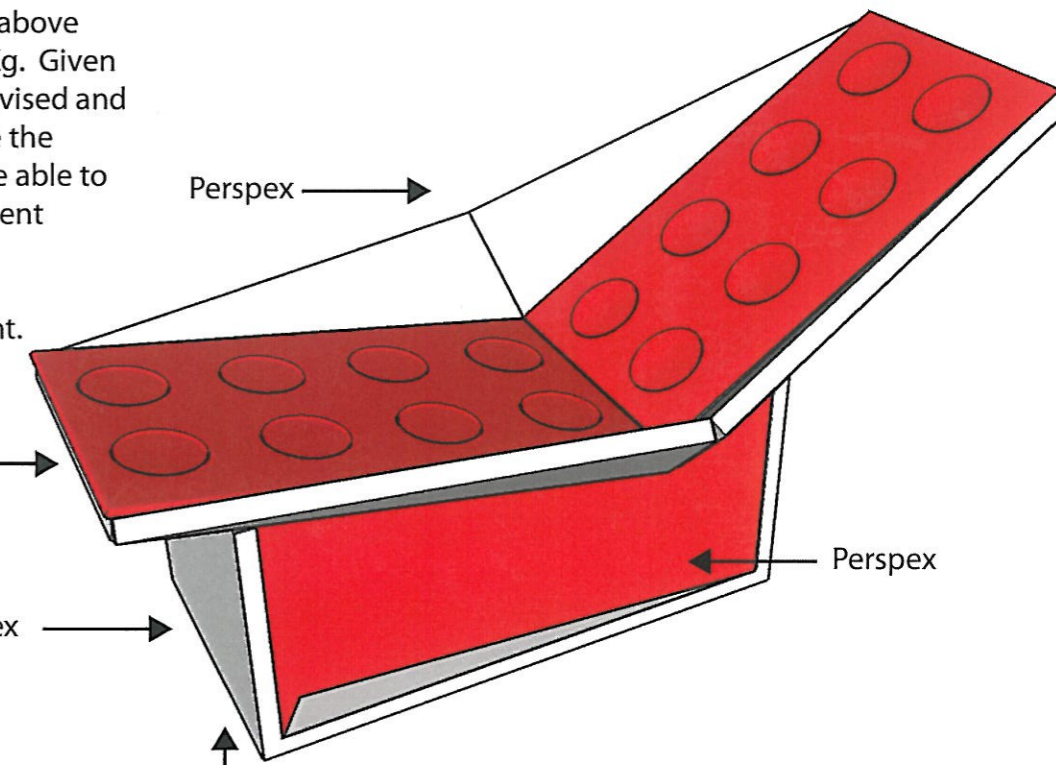
The red tango 82% wool and 18% nylon upholstery will unify the cushioning to the red and white seating. This product is highly functional as it is long wearing, able to withstand 100,000 abrasions and is machine washable.

The circular indents in the seating will tie it back to the Lego theme. By indenting rather than extruding the circular form the cushions can be thinner, therefore they fit better in the storage box.

← Indents like the clips in lego

← Rounded edges on perspex stop scratching

The materials are not likely to fade but this will be controlled for by adding an Ultra Violet filter to the windows.



Cross section of inside of perspex. A honeycomb inner will reduce weight

