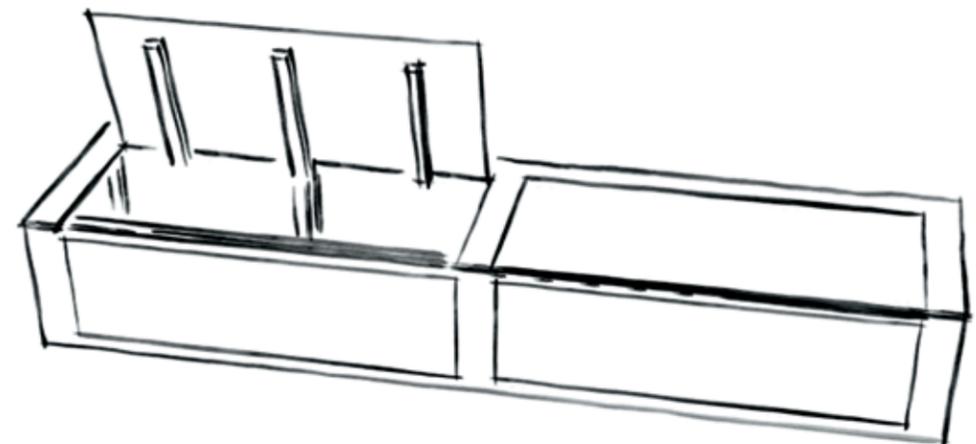




# Window Seat

A window seat will create a new living space in your home for relaxation and laughter. Reading a good book and enjoying a mug of coffee next to a window with sunshine streaming through it can do wonders for the soul. The passage in our home features a nook area in front of a large window which was perfectly suited to this project. Building this custom-made window seat in front of it virtually created an extra room in the house and a focal point for the whole family. We had two foam cushions cut to size and covered, which we put on top of the seat to create a comfortable and stylish space in our home. The storage facility beneath the seat is also very practical and it is easy to open the seat panels and pack away large toys, board games and books.



## DESIGN AND CONSTRUCTION

The project must be customised to the available space and the measurements in this chapter will need to be adjusted for the specific area you have in mind. However, the design and construction principles remain the same. The dimensions of height and width are ergonomically sound, while providing a deceptively large storage area accessible through the two hinged seat panels. A simple internal skeleton provides the support to a top and front

panel, which can be routed and decorated or painted to suit your internal décor. The two seat flaps are cut from the top panel using the plunge cut method with a circular saw and fastened to the back of the window seat with piano hinge running the length of the back. Cabinet magnets were used to ensure the lids close properly. Hooks can also be added to hold the seat panels open and prevent them from falling onto little fingers.



### Family fun factor



*The innovative design of this window seat can be adjusted to fit any suitable space by changing the dimensions, although the overall structure remains the same. The seat flaps hinge upwards to provide access to the large and convenient storage area underneath.*

## WHAT I WOULD DO DIFFERENTLY NEXT TIME

There is an electrical plug located on the wall inside the window seat. This means we have to open the seat to use the plug and run the cord through the seat flap each time we need it. I should have either moved the wall socket or mounted one on the front of the window seat and connected it to the actual wall socket inside.

You will need to be aware of electrics and plumbing in the walls where you are installing the window seat, but ensure you use certified electricians or plumbers if you need any work done that you are not qualified to do. Instead of adding three supports under each seat flap as shown above, you could use thicker wood for the seat panel.

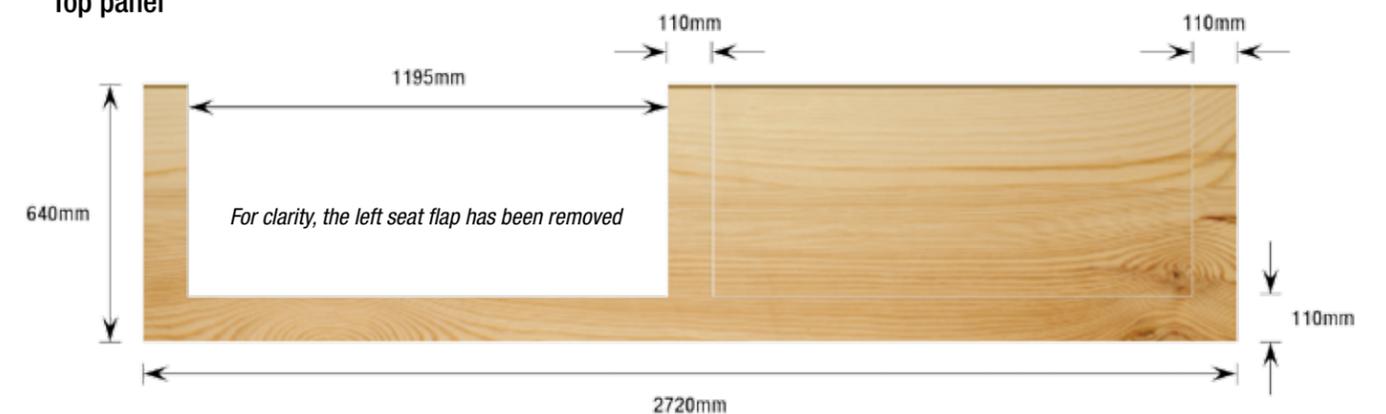
## Cutting list and materials

	PART	QUANTITY	THICKNESS	WIDTH	LENGTH
A	Seat flap (cut from C)	2	18mm	527mm	1189mm
B	Seat reinforcement	6	36mm	36mm	442mm
C	Top panel	1	18mm	640mm	2720mm
D	Top panel support, long struts	2	36mm	36mm	2720mm
E	Top panel support, short struts	3	36mm	36mm	600mm
F	Vertical struts	12	36mm	36mm	394mm
G	Front panel	1	20mm	430mm	2720mm
H	Braces	2	36mm	36mm	143mm
I	Spacers	2	36mm	36mm	43mm
J	Bottom front panel support	1	36mm	36mm	2648mm
K	Bottom struts	3	36mm	36mm	528mm
	Quarter round trim	2	12mm	12mm	3m

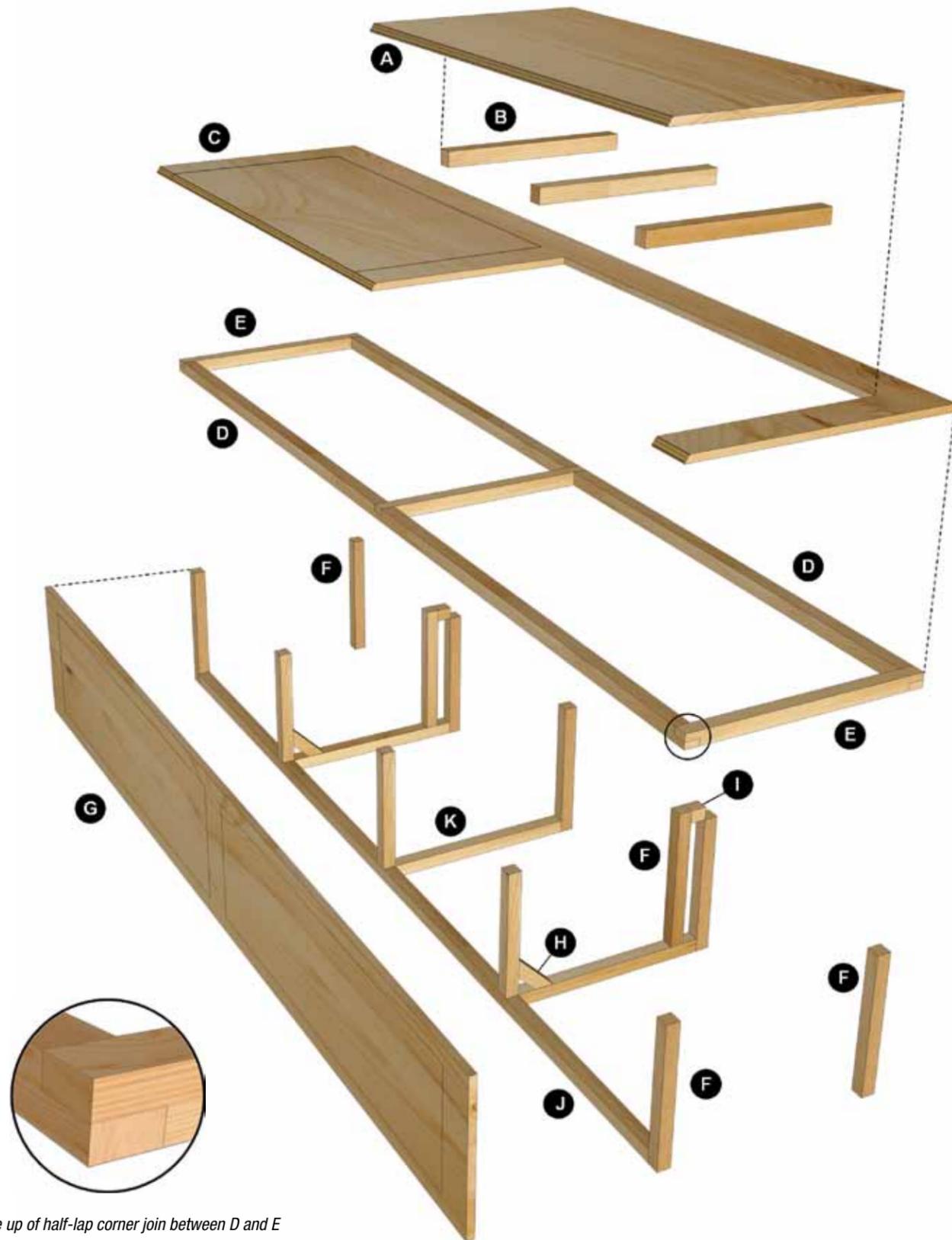
## Project information

<b>Overall dimensions</b>	2720mm long x 630mm wide x 450mm high	<b>Techniques</b>	Half-lap joint (see page 23), plunge cut method (see page 19)
<b>Number of parts</b>	37	<b>Difficulty</b>	Hard
<b>Special equipment</b>	Circular saw, router	<b>Duration</b>	16 hours

### Top panel



## Assembly diagram



Close up of half-lap corner join between D and E

## MEASURE AND ASSEMBLE A TEST STRUCTURE

**1** Use a large **steel ruler** and measure the dimensions of the area in which you are building the custom window seat. Take special note of internal right angles, floor and wall irregularities, as well as skirting boards (if any). The biggest impact of imperfect right angles will be on the back corners of the top panel, which will require a good deal of adjusting to fit correctly. Mark out the desired dimensions of the window seat in pencil on the walls.

**TIP:** To get an idea of the final window seat dimensions once you have marked it out on the walls, mount some planks on bricks to simulate the planned dimensions.



**2** Place the vertical struts (F) in the positions of the load-bearing internal frame, as shown in the photograph. Adjust the lengths of the vertical struts (F) until the long support struts (D) are level and use **half-lap joints** at the top corners where they intersect with the short support struts (E) at the ends. Fasten the vertical supports to the walls with a **power drill**, masonry bit, wall plugs and masonry screws.

**TIP:** If you have skirting boards, you will need to cut away from the bottom edges of the vertical struts (F) that are affixed to the wall. You can see in the photograph below that the base of the corner vertical strut has been cut away on two sides to accommodate the skirting boards.



## MAKE AND INSTALL THE INSIDE STRUCTURE

**3** Build up the internal frame using the required components, as shown in the photograph and with reference to the exploded view diagram opposite. Use a power drill to make **pilot holes** and then fasten all joints using **cut screws**. The middle and outer front vertical supports (F) have reciprocal horizontal supports, but the other two require reinforcing, which is shown in the photograph for the next step.



**4** The 45-degree supports for the front vertical struts (F) are shown on the left-hand side of the photograph. The portion of seat panel directly behind the hinged seat flaps also needs reinforcing. Secondary vertical supports (F) need to be added to the second and fourth uprights, as shown on the right-hand side of the photograph. Add the spacers (I) to join the top of these secondary vertical supports (F) to the midpoint of the long support struts (D) at the back of the window seat. If these are not added, the seat (C) will bend along the hinge, which is the weakest part of the seat assembly.



## ADD THE PANELS

**5** Install the front panel (G), cut out the seat flaps (A) from the top (C) using a **circular saw** and the **plunge cut method** and fasten as shown. All edges against the walls or floor will be finished off with a quarter round trim so there can be some margin of error between the panels (G and C) and the walls or the floor. In the front panel (G), I routed two rectangles into the surface to add some detail, which has to be done before fitting it.

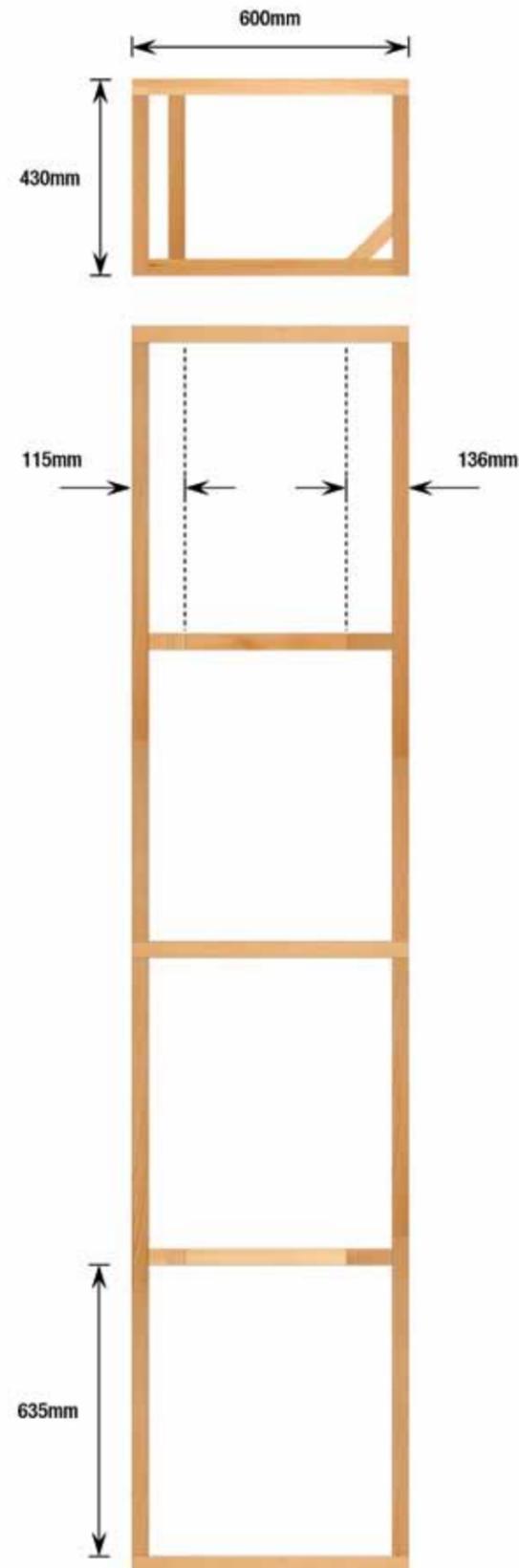
**TIP:** When installing the top panel, have some thin spacers available to adjust the height as needed to achieve a perfectly level seat.



**6** Strengthen the seat flaps (A x 2) with three supports (B x 3) each on the underside as shown, since these will take the full weight of any load and may bow or break after continued usage. Install the reinforced seat flaps (A x 2, B x 6) using piano hinge along the adjoining edges at the back. Take care to align the sections accurately and with equal spacing since this will be visible from the exterior.



Side and top view of internal frame



## FINISH THE SURFACES

**7** Use a **router** to make some decorative edging along the front of the top panel (C) and hinged seat flaps (A). You will have to remove the entire seat assembly to router the full length of the front edge if the ends of the window seat are mounted against the wall. Prior to painting, ensure there is alignment at the inside corners so that, once painted, the edging is continuous along the gap between these components, as shown in the photograph.



**8** Also prior to painting, install quarter round trim along all wall and floor edges, as can be seen in the photograph. This will hide any gaps between the wall and the panels to create a finished look for your window seat. Use wood filler to hide any remaining gaps before priming and painting.



**9** Prime and paint the exterior surfaces using a spray technique to ensure a smooth, Duco-style finish. While using a spray gun inside, take any necessary safety precautions and ensure sufficient ventilation in the room. There is no need to paint the inside of the window seat as this will not be visible when it is closed. However, you can if you want to.



**10** Accessorise with a fitted cushion and use as storage for toys and other items. To ensure proper closure of the hinged seats, I used cabinet magnets attached to the inside edge of the seat. You can add scatter cushions or even custom-make a covered cushion for the full length of the seat.

