

Materials list:

Overall timber sizes with additional 10% length added

- a. 6 x 620 x 900mm MDF board / 0.23 x 24 x 36 inches
- b. 6 x 45 x 6198mm / 0.23 x 1,8 x 244 inches
- c. 20 x 20 x 935mm / 0.78 x 0,78 x 36,8 inches
- d. 20 x 45 x 297mm / 0.78 x 1,57 x 11,7 inches
- e. 913mm/ 35,9" long, 8mm / 0,31" dia. dowel stick

The above constitutes the bulk of the material needed. There are smaller pieces such as a short length of 15mm/ 0,59" dia. dowel stick which have not been included.

Step 1 – Drawing board bracing and frame fixing supports:

1. 6 x 620 x 900mm MDF board / 0.23 x 24,4 x 35,4 inches
2. 6 x 45 x 120mm (x2) / 0.23 x 1,8 x 4,7 inches (x2)
3. 6 x 45 x 120mm (x2) / 0.23 x 1,8 x 4,7 inches (x2)
4. 20 x 30 x 50mm (x2) / 0.78 x 1.1 x 1.9 inches (x2)
5. 6 x 45 x 45mm (x2) / 0.23 x 1,8 x 1,8 inches (x2)
6. 6 x 45 x 45mm (x2) / 0.23 x 1,8 x 1,8 inches (x2)

Including: 20 x 12mm wood screws, 4 x 30mm wood screws.

Step 2 – Side frame with hinges:

7. 6 x 45 x 610mm (x2) / 0.23 x 1,8 x 24 inches (x2)
8. 6 x 45 x 565mm (x2) / 0.23 x 1,8 x 22.2 inches (x2)
9. 5cm / 1,9" wide hinges (x2)
10. 6 x 18 (20) x 45mm (x8) / 0.23 x 0.7(0,78) x 1,8 inches (x2)

Including: 12 x 8mm/ 0.3" wood screws for hinges, 12 x 12mm/ 0.7" wood screws.

Step 3 – Top frame with handle:

11. 6 x 45 x 45mm (x2) / 0.23 x 1,8 x 1,8 inches (x2)
12. 6 x 45 x 45mm (x2) / 0.23 x 1,8 x 1,8 inches (x2)
13. 6 x 45 x 755mm / 0.23 x 1,8 x 29.7 inches

Including: 16 x 8mm / 0.3" wood screws.

Step 4 – Adjustable stay with hinges and dowel:

14. 20 x 20 x 20mm (x2) / 0.78 x 0,78 x 0,78 inches (x2)
15. 20 x 20 x 360mm (x2) / 0.78 x 0,78 x 14,1 inches (x2)
16. 3.5cm/ 1,37" steel hinge (x2)
17. 20 x 20 x 20mm (x2) / 0.78 x 0,78 x 0,78 inches (x2)
18. 40mm/ 1,57" long 2mm / 0,07" dia. bolt and nut with washer (x2)
19. 815mm/ 32" long, 8mm / 0,3" dia. dowel stick. Add an additional 20mm / 0.78" for tolerance.

Including: 12 x 8mm / 0,3" wood screws for hinges.

Step 5 – Removable pencil tray:

20. 6 x 45 x 900mm / 0.23 x 1,8 x 35,4 inches
21. 6 x 45 x 810mm / 0.23 x 1,8 x 1,8 inches
22. 20 x 40 x 90mm (x2) / 0.78 x 1,57 x 3,54 inches (x2)

22a. 8mm / 0.3" dia. carriage bolt with wing nut and washer (x2)

Step 6 – Wooden latch:

23. 6 x 25 x 45mm / 0.23 x 0,98 x 1,8 inches

24. 26 x 30 x 35mm / 1,02 x 1,18 x 1,37 inches

25. 20mm long, 6mm dia. dowel stick / 0,78" long, 0,23 dia. dowel stick

26. 6 x 20 x 50mm / 0.23 x 0,78 x 1,9 inches

27. 20mm long, 15mm dia. dowel stick/ 0,78" long, 0,23 dia. dowel stick, Add an additional 50mm/ 1,9" as 'grip'.

28. 6 x 30 x 40mm / 0.23 x 1,18 x 1,5 inches

Additional material:

29. Thin sheet of sponge rubber, marker pen, scissors and a tube of contact adhesive to be used for the feet.

30. 20 x 20 x 20mm / 0.78 x 0,78 x 0,78 inches pencil tray bracket stops mounted on back of board.

31. 25 x 40 x 40mm / 0,98 x 1,5 x 1,5 inches to be used as secondary hinge. Refer to the sketch at end of this Instructable. I found two small strong magnets that worked perfectly as an alternative to the secondary hinge.

Timeframe for build:

One day spread over three days to allow for glued parts to bond.

Overall weight and size:

- 2,5 kg / 5,5 pounds
- 45 x 620 x 900mm / 1,8 x 24 x 36 inches

General Notes:

1. All timber items shown in brackets in the steps in the Instructable are cross-referenced to the drawings and relate to the numbers on the materials list above.
2. All sketches and drawings are freehand and are not drawn to scale.
3. All dimension conversions were done with a calculator so the imperial sizes do not necessarily reflect standard US timber sizes. As small discrepancies are allowed due to this being built with hand tools only, please adjust to standard sizes if you want to.
4. Although I made this build completely from off-cuts that I found in my wood store except for the MDF board, I have quantified the overall timber requirements for this build so that you can buy the wood from your local timber merchant.
5. If you require any further information or have any other questions please contact me via my Instructable site.