

Simple Storage Box

Intro: Simple Storage Box

I made this simple storage box for my baby's toys. It's an easy one day project and you can improve or add your own design to it.

Material you will need:

- Your choice of wood.
- Mitre saw, skill saw or hand saw.
- Jigsaw (use special blade for cutting angles)
- Biscuit joiner and biscuits no10.
- Hand sander. different grit levels.
- Cordless drill (for screws and pilot holes)
- PVA Glue, glue roller, tape, pencil, screws, pins, 2 hinges, clamps, set square, ratchet straps or long clamps.

Safety : When using electric tools use ears and eye protection.
Keep body parts away from sharp blades. **WORK SAFE!**

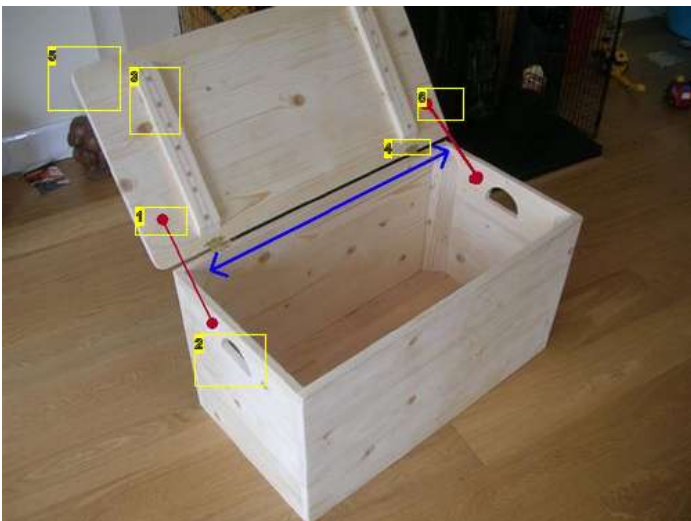


Image Notes

1. Location for the Lid stay device
2. Arc for handles and ventilation

3. Support for lid. Use screws and glue, drill shallow 10mm pilot holes, cover with hardwood plugs .
4. Hinges in place
5. Round all corners with jigsaw
6. Lid stay

Step 1: Choose box material

You can make the box from a few cheap materials such as soft wood, plywood, mdf board and more. After deciding what material you are using think about the practical size of the box and what will be its purpose. I made my box size Length=800mm x Width=380mm x Height=450 that is a good size for keeping all my baby toys tidy in one box. I chose to use soft wood 19mmx144mm.

- Start by cutting your length and width size using a mitre saw or hand saw.
- Don't forget to subtract the thickness of the material x 2 from your width to achieve your box width design.
- Use a long set square to mark the lines between the joints, those lines will guide you when using your biscuit jointer.



Image Notes

1. Cutting board for box walls



Image Notes

1. Pencil mark

2. pencil mark

Step 2: Using a biscuit jointer

- Choose your biscuits (don't eat them!!!) I used no 10. Set your jointer height so the blade will be in the center of the timber and set the depth of the blade to be in the center of your biscuit.
- Most important: work on a **SUPER FLAT** surface or your joints will not match. Hold the jointer using the red guide line against your pencil mark on the timber, turn jointer on and push it into the timber moving about 5mm left and right to create a wider joint in case you miss the mark.
- After all joints are ready make a dry assembly to see if it all fits nicely together.
- Use PVA wood glue, don't be shy make sure you get good glue coverage in all joints, use a glue roller to spread it all evenly.
- Attach all parts to each other and wipe excess glue with damp cloth.
- On a flat surface use clamps to pull parts together, what will happen is the timber will lift up like a banana so use 2 thick lengths of timber and clamp them pushing the work piece downwards.



Image Notes

1. No' 10 biscuits
2. Biscuit jointer

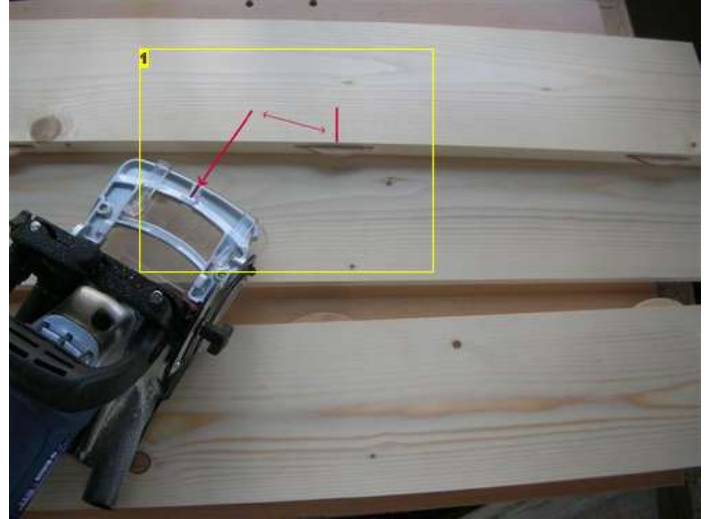


Image Notes

1. Jointer center mark in front of pencil mark. After using jointer dry assemble parts.

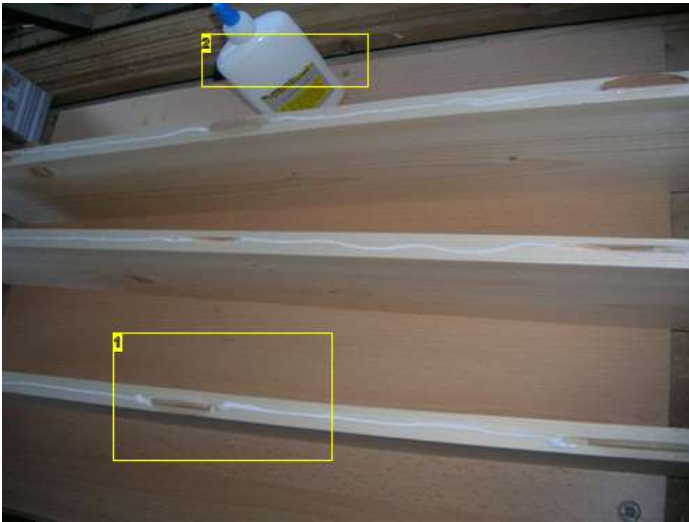


Image Notes

1. Biscuits ready with glue. Use glue roller to get good glue coverage.
2. PVA glue

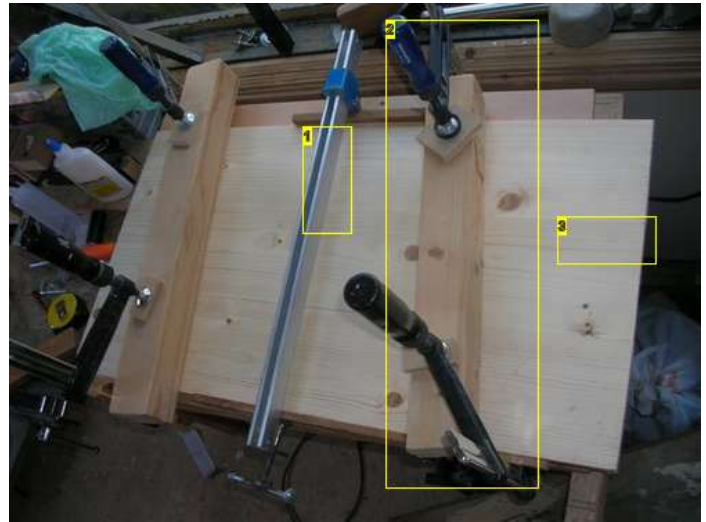


Image Notes

1. Clamp pulling joints together. Use 2 on each side, I have only one in this image.
2. Clamps on flat surface pressing glued joints down.
3. This is the length part of the box

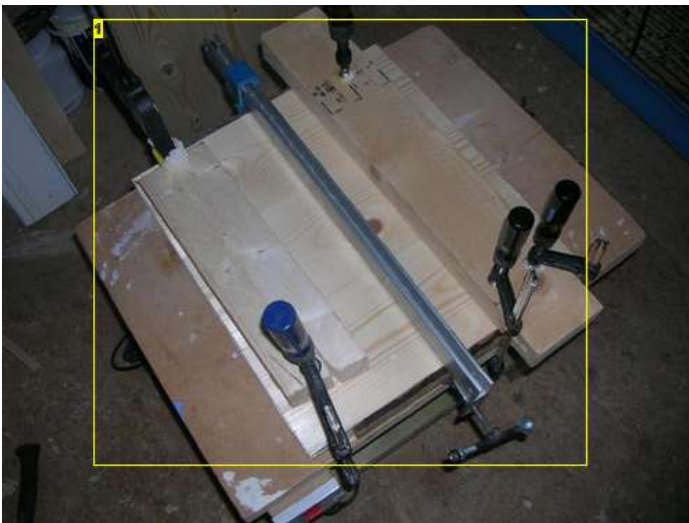


Image Notes

1. This is the width part of the box.

Step 3: Cut support angles

Here I used 2*2 timber cut in the center with my mitre saw to create the support angles for the inner box.

- Screw 2 screws in an angle to support the timber. **keep the screws away from the path of the blade.**
- The support timber is for your own safety, **keep your hands AWAY from the blade.**
- The corner of the 2*2 should be aligned with saw blade.
- When cutting make a few passes on the 2*2 don't force the blade in one go.
- Cut angle end (for decorative purpose).
- Sand the 4 angles.

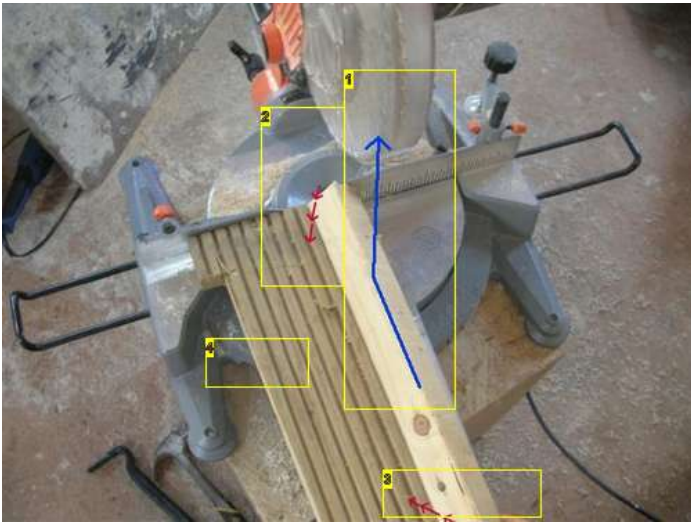


Image Notes

1. The center cut line has to be aligned with mitre saw blade.
2. Screw at an angle into the support timber. KEEP SCREW AWAY FROM BLADE PATH.
3. Screw at an angle into the support timber. KEEP SCREW AWAY FROM BLADE PATH.
4. Support timber

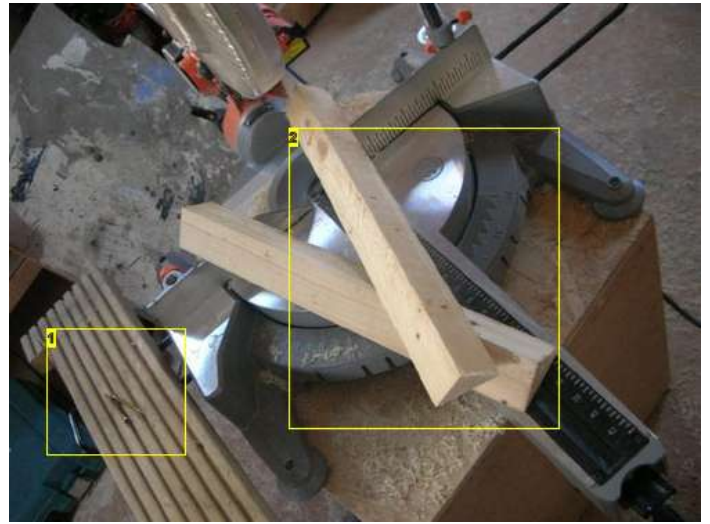


Image Notes

1. Support timber
2. 2 angles ready



Image Notes

1. Cut angle end (decorative purpose)



Image Notes

1. Sand all angles

Step 4: Box-Lid

Same again using a biscuits to join lid parts. Try adding a few extra biscuits making the joints closer to each other since the lid will be opened and closed many times.



Image Notes
1. Joints - dry assembly



Image Notes
1. Biscuit in joint

Step 5: Check box is square and make the box base

I ran out of big clamps so I took my emergency ratchet straps and used them to secure the box after gluing all sides. If you want you can use screws or nails for the sides.

- After securing the ratchet straps check your box is square by measuring from one diagonal corner to the other.
- When tightening the straps don't forget to place small blocks under the ratchet metal part as they will mark the soft wood when pressed against it .
- Use your mitre saw and cut 20-30mm strips to support the base of the box.
- Glue support strips, small pin-nails or screws are optional.
- Glue box base. I made the base of the box from left overs of my wooden floor.
- After the glue is dry use a small sander and sand all box parts starting from low grit to high grit (fine) .

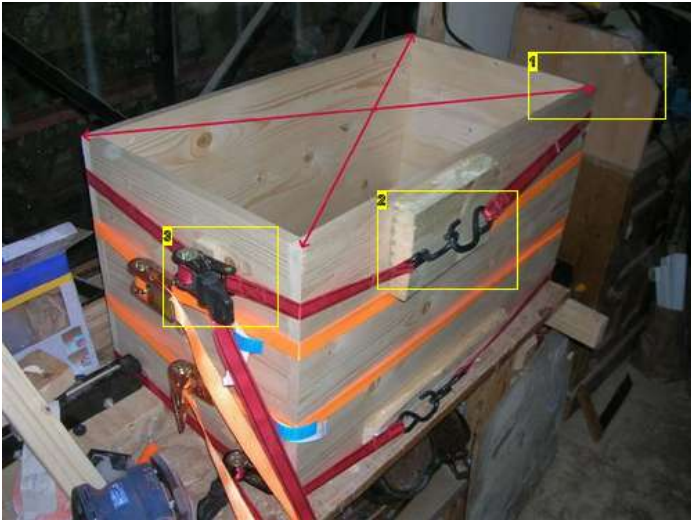


Image Notes
1. Check box square diagonally from one corner to the adjacent corner.
2. Timber block to protect soft wood from ratchet strap.
3. Block of timber under ratchet clamp.



Image Notes
1. Box base support strips.



Image Notes

1. Support strips glued

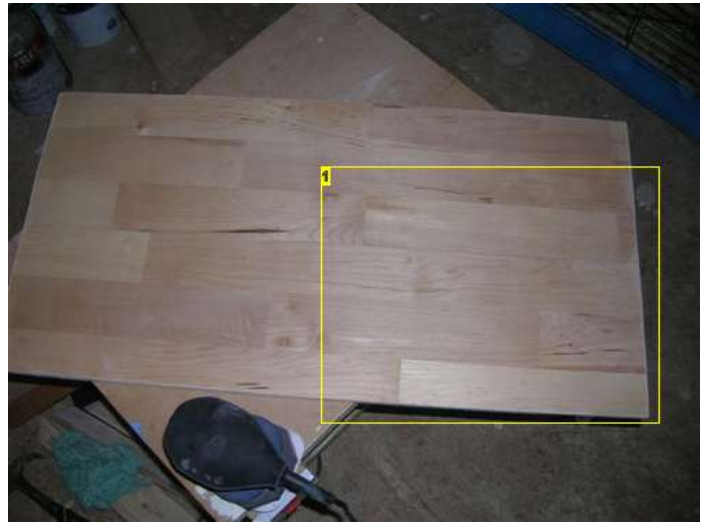


Image Notes

1. Box base made from wooden floor left overs.

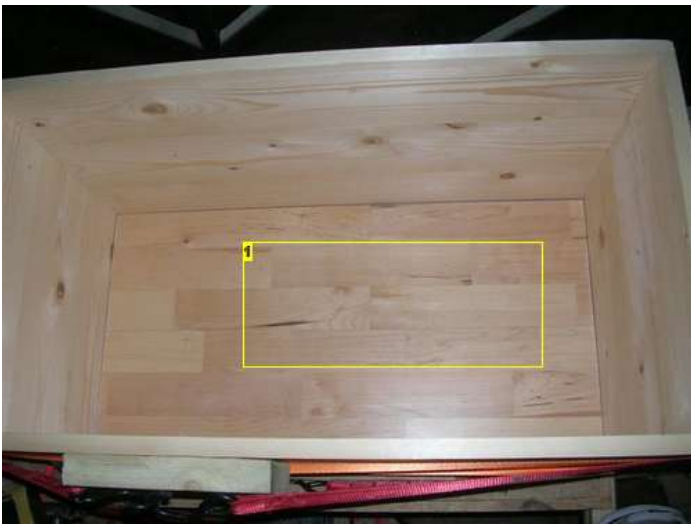


Image Notes

1. Box base in place.

Step 6: Enjoy your storage box

- Glue the support corners in.
- Attach small hinges.
- Round lid corners with jigsaw.
- Make 2 segments / arcs on the sides of the box for lifting. when using the jigsaw use special blade for cutting angles.
- Attach 2 straps to the inner box lid as support, glue, screw and close with hard wood plugs. You can paint this simple box, add mouldings or use electric router to create a few shapes or writings on the box.
- Be creative my baby sure is.



Image Notes
1. Corner support angle glued in place

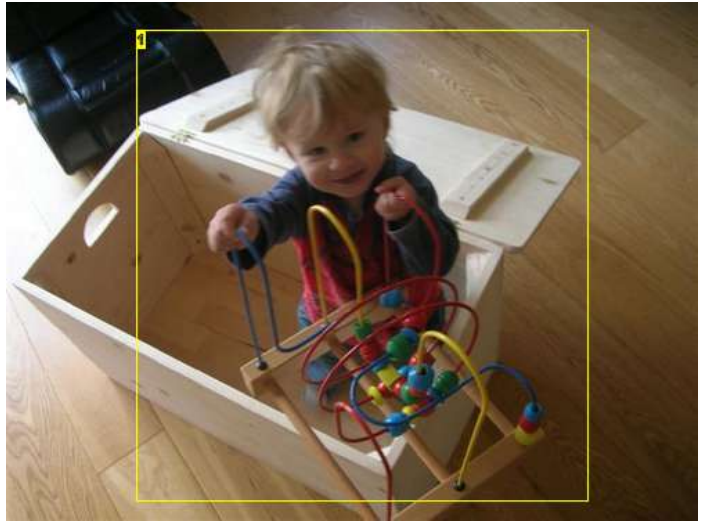


Image Notes
1. Happy chap loves the box



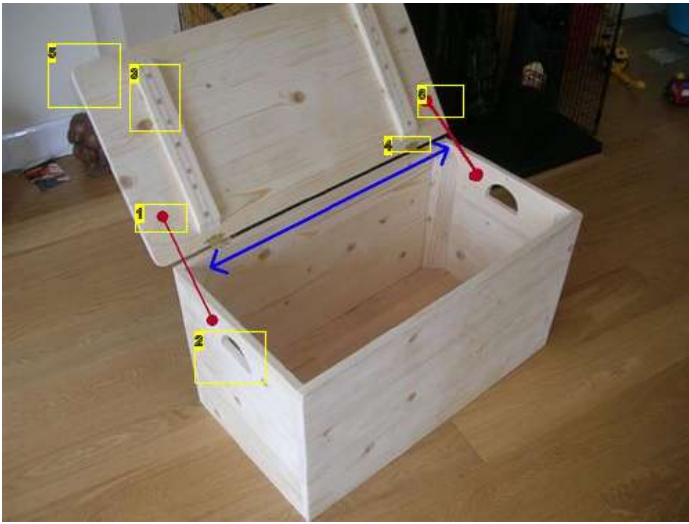


Image Notes

1. Location for the Lid stay device
2. Arc for handles and ventilation
3. Support for lid. Use screws and glue, drill shallow 10mm pilot holes, cover with hardwood plugs .
4. Hinges in place
5. Round all corners with jigsaw
6. Lid stay

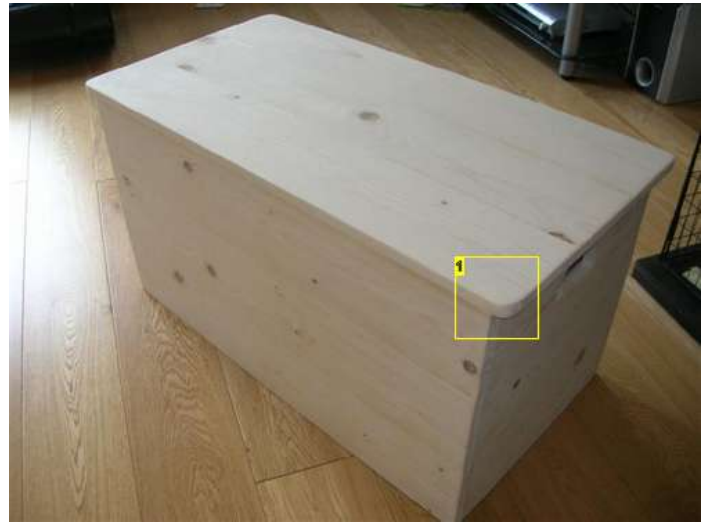


Image Notes

1. All corners rounded with jigsaw

Step 7: Lid stay.

I add this step after comments regarding lid stay for child safety.

I am not going to promote products and brand names any one can Google "lid stay" will find many different lid stay devices all over the net.

I attached a few images for safety devices and where to attach it on the box.

Regarding the danger of suffocation it will not happen if you cut vent holes (like the arc for handles on the sides of the box).

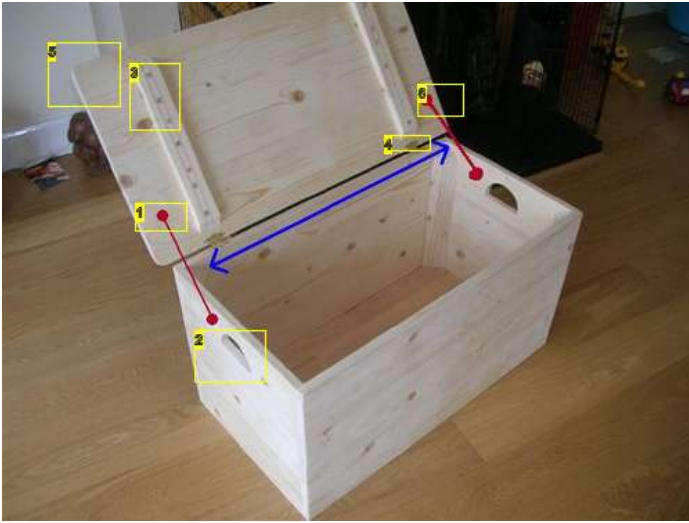


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