Smart nesting box assembly

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Tools:

philips screwdriver, battery drilling/screwdriving machine, 4mm and 2,5mm drill, 4,5mm screws for wood, glue for wood

sandpaper, file, knife

Material:

woodden plates cut and milled per 3D models available from

http://www.3dcontentcentral.com/download-model.aspx?catalogid=171&id=773192

Time required:

about 2 hours

Gather all parts

Use sand paper to work on rough edges
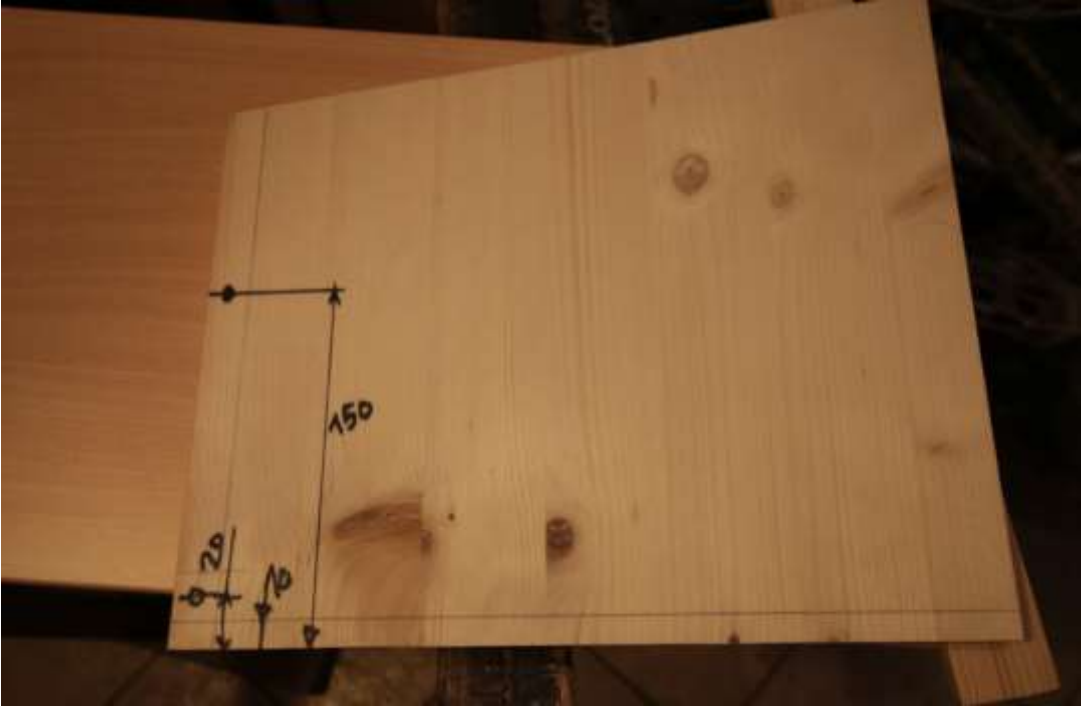
Mark 10mm from the bottom edge

Mark position for the front on the left and right side plate (lower edge)

Repeat on both side walls

Mark hole positions and drill 4mm holes.

Attach front wall

Slots for the optical sensors are on the outside. They will be covered with the sheet metal at the end.

Attach both side walls and fix the floor. Warning!!! The floor must be 10mm rised.

Mark 14,5cm from the rear edge:

Drill three holes and attach mid wall to form the interior box for the bird nesting.

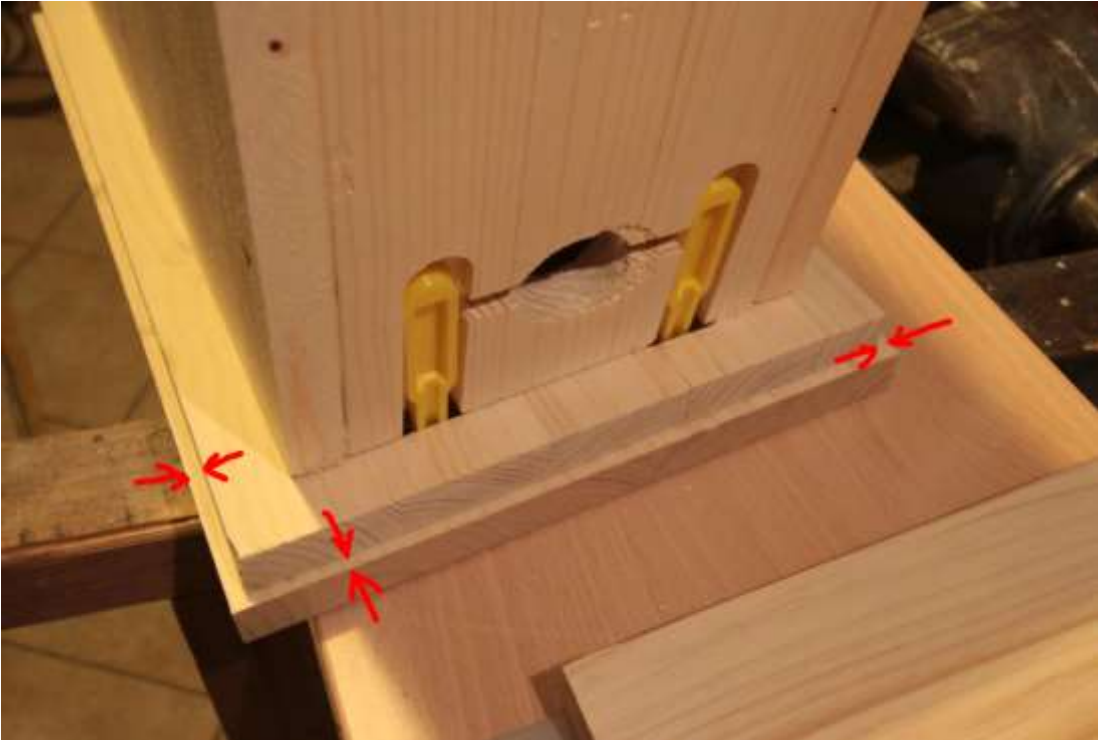Mark for holes and attach rear outside wall.

Attach optical sensors on the smart roof (only housing), which is used to fit the position of the roof.

Align the position of the roof

Turn upside down and mark the position. Warning: small edge must be all around the roof edge.

Slots for the cables must reach the electronics compartment.

Mark the position all around the ceiling.

Mark position for 11 holes and drill 4mm.

Align the ceiling position back on the house and attach with 2 or 3 screws.

Check if the smart roof fits. Adjust the position of the ceiling if needed.

Attach all 11 screws.

Attach roof borders.

Firs short edges, then longer:

Proper side for roof edges

Take two 90° bracket and expand the angle to 100° in a vise:

Check the 100° angle with the nesting box wall:

Repeat with second bracket.

Place brackets on the roof. Put the back wall between the house and brackets. Mark position of the brackets and attach with shorter screws.

Remove the house and left the roof on the table. Try not to move the brackets (to keep the position)

Check the lovcation and fix with 16mm screws.

Attach holding plate for electronics and fix with 16mm screws to brackets:

Roff should slide into the house smoothly.

Attach plastic housing for electronics

Place plastic housing lid and check if the roof enters smoothly into the nesting box.

Place camera housing and check the position on nesting box.

The new house is now finished.

It's time to attach the supporting mast.

Use two cross planks:

Drill two holes for attaching.

Secure with 6 screws:

Attach supporting ledge. Warning: don't place it too high to avoid roof:

Your (or may I say bird's) new house is now finished.

It's time to equip it with the electronics.