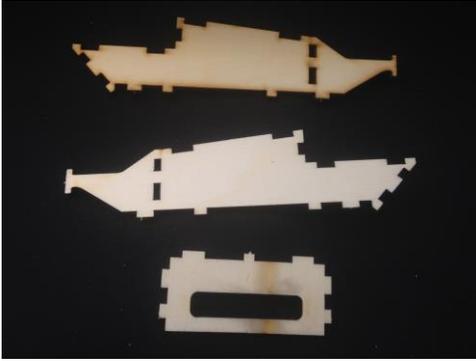
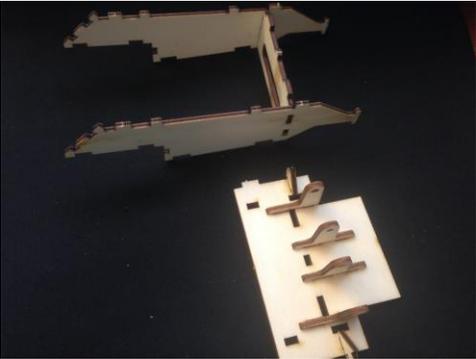


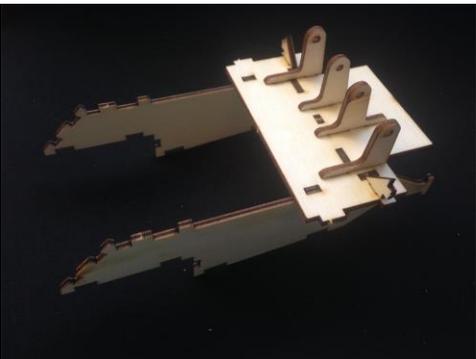
Tank lesson plan # 2



Break and file down the parts as seen in the picture

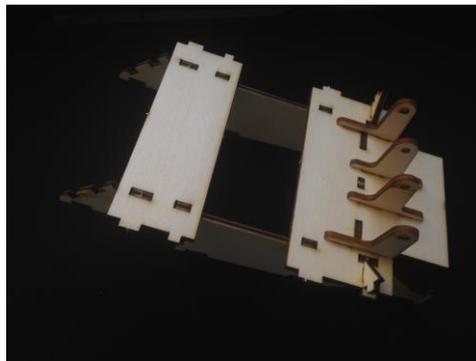


Glue the middle part in between the walls (there's only one way to glue it correctly)



Take the upper plate we glued in the previous class and glue it on top of the part we glued earlier.

Please make sure all the connections are solid and the parts are inserted all the way in their cracks



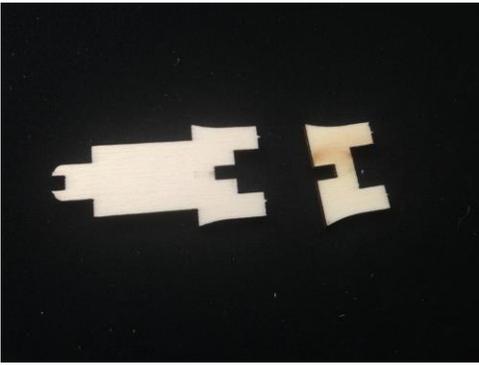
Break and file the part in the picture.

After doing so, please glue it to its proper place



We are going to build the hinges that connect the wheels to the motors.

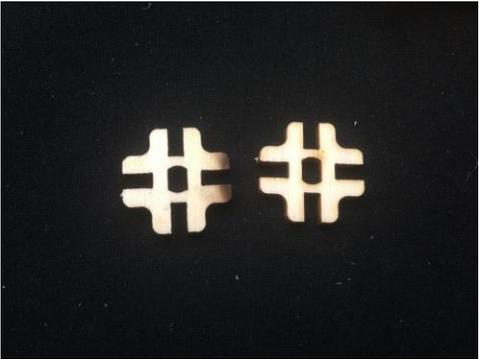
Break and file down the pieces as shown in the picture.



First, we are going to use only these 2 pieces



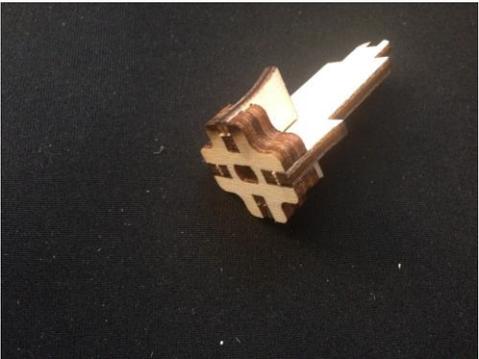
Glue the parts so they look like a pitchfork



Take the two small parts.

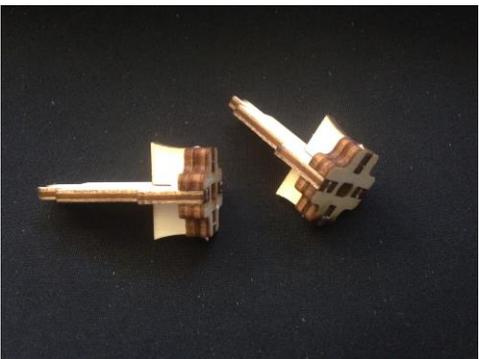
Please notice the crack in the middle

The holes should be aligned exactly on top of each other. If not, the hinge won't fit on the motor!!!



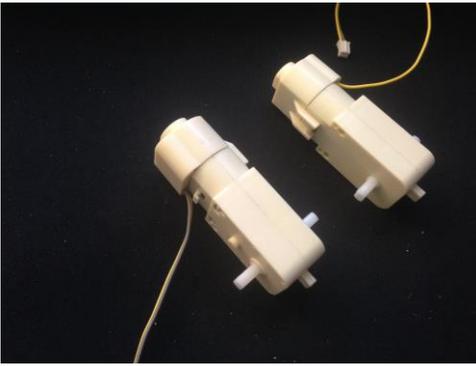
Only **after checking** all the kids aligned the holes, glue both parts into the pitchfork.

Check again that the holes are aligned!!!



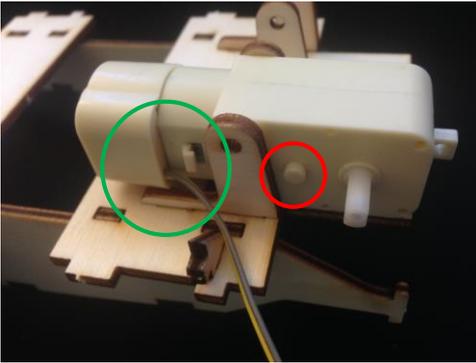
Do the same process for the other hinge.

Make sure you check twice each part, it would be impossible to fix this part after the glue dries.



We are going to assemble the motors onto our model.

Please give the kids safety instruction about the motors before you hand the motors to the kids.



We are going to place the first motor in its place.

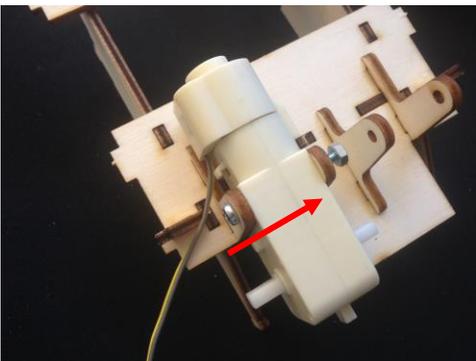
We have 2 ways of checking if the motor is facing the right way or not. **This is extremely important step, after we finish the model there is no way to re-position the motor without breaking the model.**

First sign, wires are pointing outside of the model (green circle)

Second sign, on the same side of the wires we have a round bump that should also face out of the model (red circle).



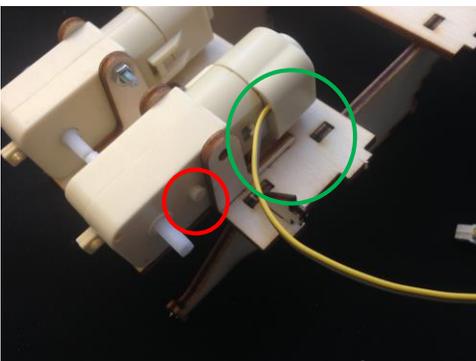
Ask the kids to place the 1st motor in its place, after checking directions, hand the kids one 30 screw and 1 regular lock nut.



Push the screw from the outside (look at the arrow)

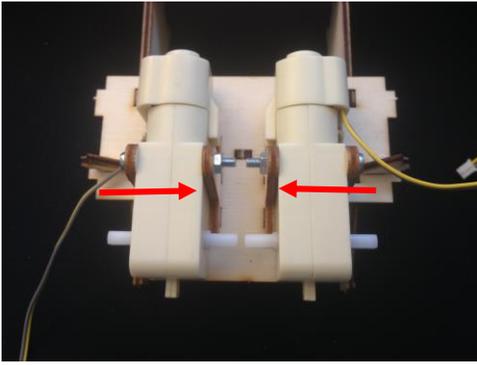
Then lock it on the other side with the lock nut.

This would also be a great time to re-check the direction of the motor



After assembling and checking the 1st motor, we move on to the 2nd motor.

Same way as the first motor, the wires and the round bump are facing out.

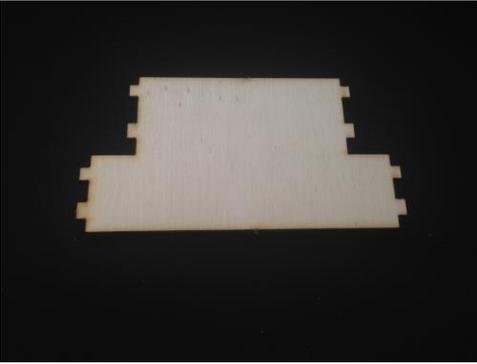


Hand the kids a 30 screw and a lock nut, The 30 screws come from the outside and the nuts from the inside.

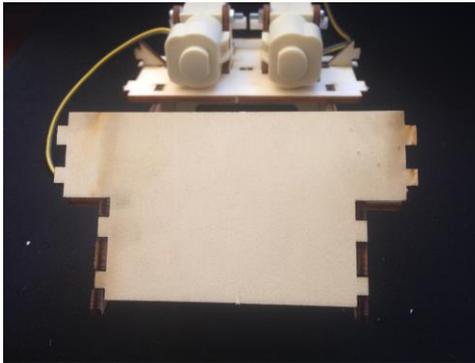
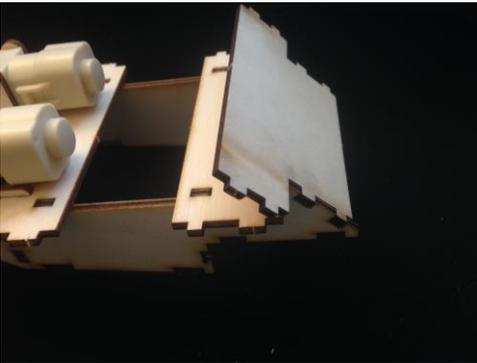
After finishing, take a moment to review and check all the steps up to this point.

Both motors should be side by side, right motor should have the wires coming out from the right side, left motor should have the wires coming out from the left side.

Both 30 screws come from the outside, so the lock nuts are facing each other.



Break and file down the part as seen in the picture



Glue it to the front side of the body. Make sure the kids apply enough glue and inserted the part to its proper place.