



JUNIOR SEABEE

EO – EQUIPMENT

OPERATOR



Complete all seven ratings to earn your Junior Seabee Certificate. Share your creations on social media using #JuniorSeabee #USNSeabeeMuseum

Making Tools Work

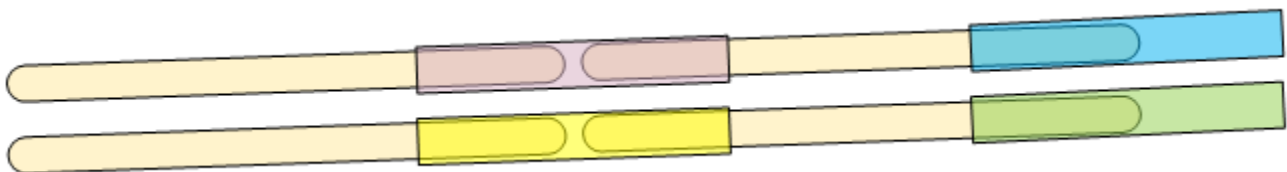
Equipment Operators are the lucky Seabees who get to operate all of the awesome machines that the Seabees use, in particular the heavy equipment. They are the drivers of big trucks, the men and women who work bulldozers and cranes and other equipment that allow the Seabees to do the difficult at once, and the impossible that takes a bit longer.

Junior Equipment Operators will need to build their own machines for this exercise, and you will be building a claw or grabber that allows you to pick things up from a distance.

To build your claw, you will need the following:

- 8 craft sticks
- 2 smoothie straws, cut into quarters
- Bamboo skewers, cut into four 3" pieces and four 2" pieces (you can use the ends as well, if needed)
- Scissors
- Tape
- Small gauge nail with a hammer (or a straight pin)
- Pipe cleaners or Rubber bands (optional)
- Light weight objects to pick up

1) Create four arms, by connecting the craft sticks with straws. Be sure to leave a small gap between the ends of the craft sticks. On one end of each arm, add an additional piece of straw that has at least an inch hanging off of the end.

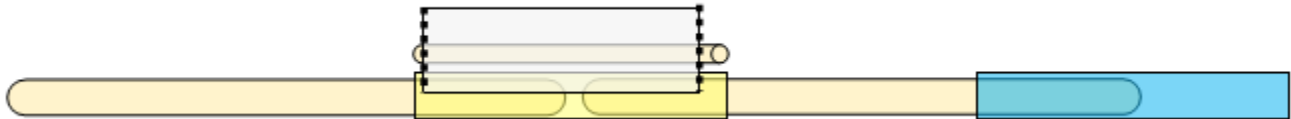


JUNIOR SEABEES CAN DO TOO!

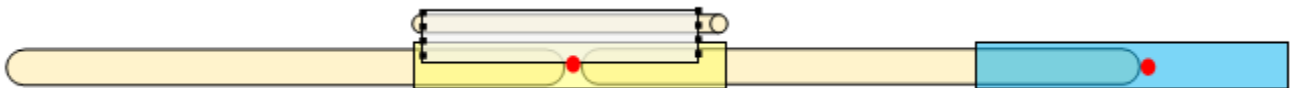


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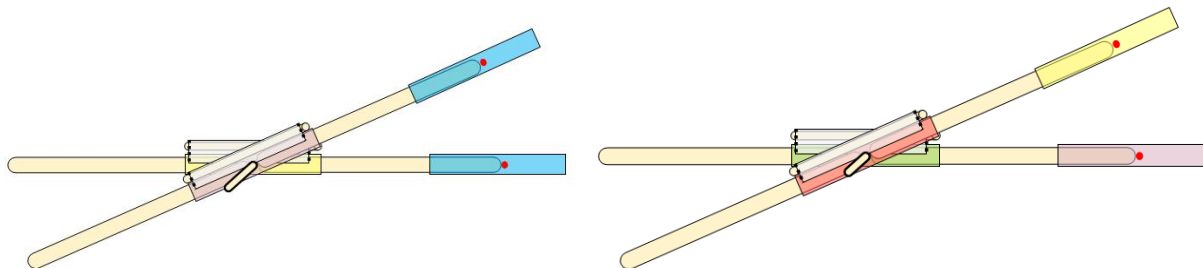
2) Using the small pieces of bamboo and tape, fold the tape over to attach the bamboo to the narrow sides of the arms you have created to reinforce the connections between the sticks to make them more sturdy. Do this with all four arms that you have created.



3) Take your hammer and nail (or straight pin), and make a small hole in the straw and tape in the space between your two craft sticks. Remove the nail and repeat with all four arms. Create a second hole in just the straw at the very end of the arm as well. Holes are indicated by red dots below.



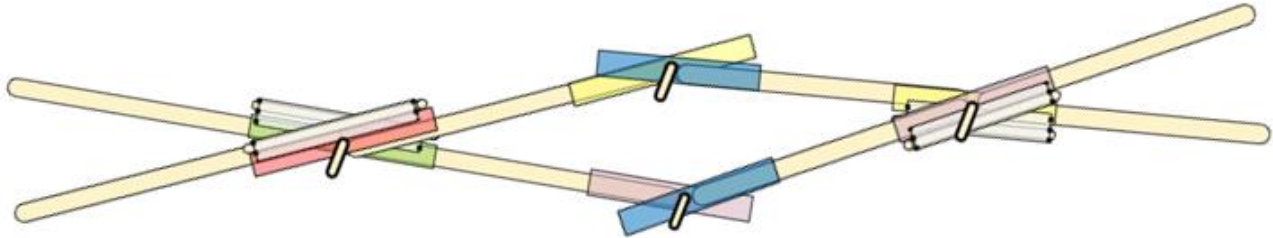
4) Use the holes to connect two arms by placing a 2" piece of bamboo through both holes to create a scissor effect. Repeat so that you will now have 2 "X" shaped pieces.





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5) Next, you will connect the ends of the “X” pieces with additional 2” pieces of bamboo



6) Now it is time for you to get creative. What can help you use your grabber to pick things up? Add rubber bands to the ends, or pipe cleaners or additional pieces of craft sticks to give your grabber more grip. You can try tape, sticky side out.

7) Now it is time to operate your machine. Can you pick up a toy car? Can you pick up a disposable cup? What can you pick up with your grabber? Take pictures of your grabber in action.

8) Clean-up is always the last part of anything we do! Put away the hammer and nail or pins, scissors and any other items you have gotten out.

9) Please remember to post pictures on social media using #JuniorSeabee and #USNSeabeeMuseum so the world can see what you’ve learned. Share your creations on our Instagram or Facebook pages – tag us at **U.S. Navy Seabee Museum** and don’t forget to follow us!