

Making

- This session you will be making your Bot.

What you will need:

- Your Bot worksheet from session 1
- Scissors
- Tape/Glue



1

Which skills will we use today?

Working with others
Collaborative

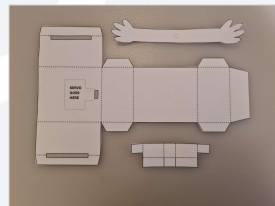
Recovering quickly from problems
Resilient

Staying calm when facing problems
Patient

2

Cutting

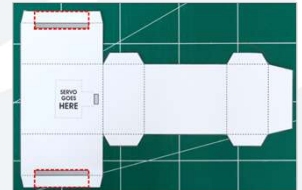
- Start by cutting all your pieces out from your Bot Design worksheet.
- On the servo holder (bottom smallest piece in photo) you will need to make small cuts on the 2 solid lines as well.



3

Cutting

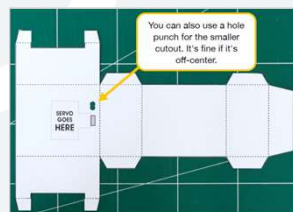
- There are some grey sections to cut out. If these are too hard to cut, here are some possible other ways to cut them.
- Instead you can cut along the red lines. This will result in the bot being a bit flimsier. But it will be enough to tape together.



4

Cutting

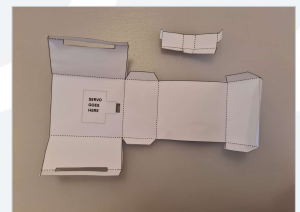
- There are some grey sections to cut out. If these are too hard to cut, here are some possible other ways to cut them.
- Instead of the small grey rectangle, you can use a holepunch. Punch two holes next to each other.



5

Pre crease

- Pre crease all of the dotted lines to make it easier to put together later.



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Arms

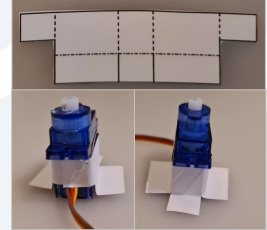
- Tape a servo horn to the middle of the arms where the small circle is.



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Servo

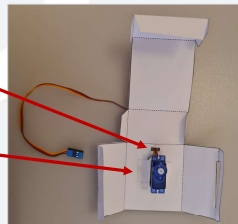
- Tape the servo holder around the servo. Wrap the paper around then tape over the paper tabs.
- Make sure the tabs on the bottom are folded out.



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Attaching servo

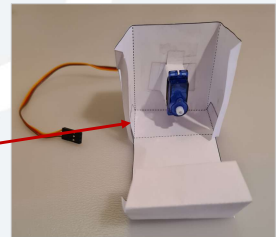
- Pass the servo header through the small hole. Then tape the servo in place as shown.
- Only need to put tape onto the paper tabs of the servo holder.



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Building the body

- Tape the back and bottom of the body together.
- Put tape on the two tabs at the bottom of the box.



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Arms

- Slide the arms through the cutouts with the servo horn facing inwards towards the servo.
- Push the arms onto the servo in a horizontal position.

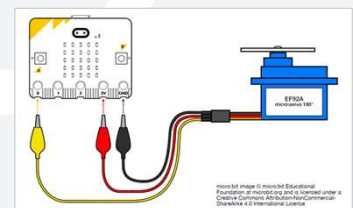


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Testing the Arms

Re attach the micro:bit to the servo. Here is a reminder of how the wires are attached.

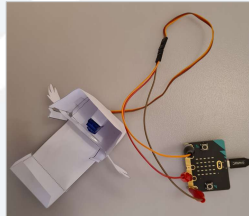
- Crocodile clip connected to the **YELLOW** servo wire → micro:bit pin 0
- Crocodile clip connected to the **RED** servo wire → micro:bit pin 3V
- Crocodile clip connected to the **BROWN** servo wire → micro:bit pin GND



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Testing the Arms

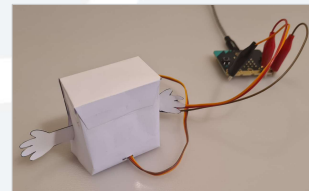
- Plug the micro:bit micro USB into the micro:bit and the other end into a computer.
- Make a loud noise and see how the arms move.
- If the arms are at the wrong angle and are not fitting in the slots, remove the arms completely, then re attach horizontally again.
- Keep testing till the arms are moving happily in the slots.



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Front of body

- Tape up the front of the body by folding the front over and taping the 3 tabs down.



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Decorate

- Now you can decorate your Bot however you like!
- Add the accessories you designed before.



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Which skills did we use today?

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