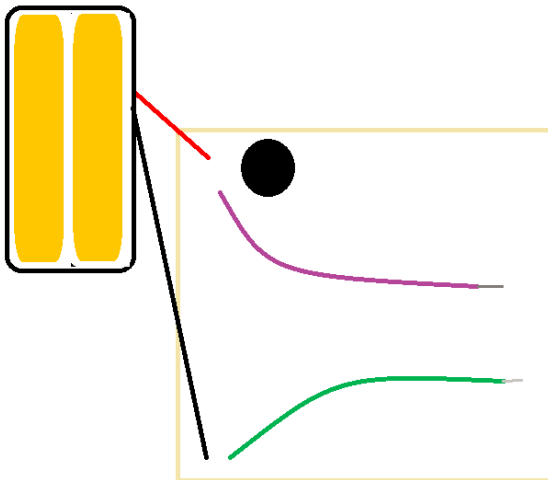


Introducing Circuits.

1. Look in your electronics kit. Can you find a white plastic board? This is the bread board. Draw it here:

Can you see the letters along the top of the board and the numbers down the sides?

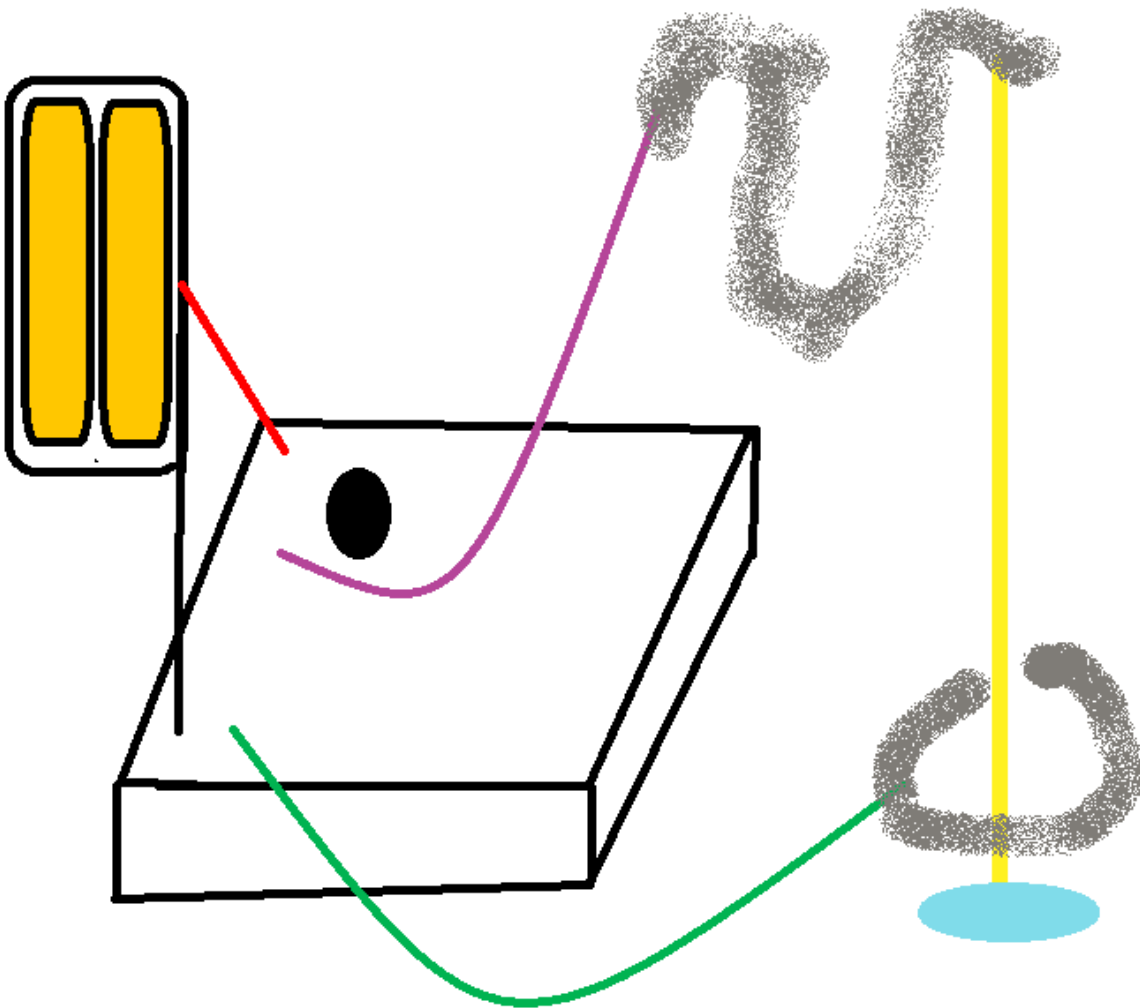
2. Now find a battery holder and two batteries in your kit. Put the batteries into the holder, make sure they're the correct way round! (The battery holder and the batteries have + symbols at one end.)
3. Your battery holder has one red wire and one black wire. Put the red wire into the hole labelled A1. Put the black wire into the hole labelled A17.
4. Now find the buzzer (it has a round black top).
5. Put the positive leg of your buzzer (the one nearest the red + symbol) into the hole labelled E1. The other leg should slot into the hole labelled E4.
6. You should have two coloured wires in your kit, what colours do you have?
7. Put one end of the shorter of your wires into the hole labelled A4.
8. Put one end of the longer wire into the hole labelled C17.
9. Your board should look like this:



10. Touch the free ends of your coloured wires together, briefly. The buzzer should sound.

Making a Steady Hand Game

1. Start with the buzzer circuit.
2. Take a long piece of foil and roll it to make a stick. This is the track that you will be moving your loop around. Shape it into a wavy shape.
3. Pierce one end of your wavy foil with the free end of the wires that is in hole A4.
4. Pierce the other end of the wavy foil with a wooden skewer.
5. Use blue tac to stick the bottom of the skewer to the table top, so that the skewer holds your foil wave up.
6. Now take a short piece of foil and make it into a loop around the skewer.
7. Pierce a part of your loop with the free end of the wire that is in hole C17.
8. You should now have a Steady Hand Game.



Can you move the loop from one end of the wire to the other without sounding the buzzer?
Try swapping games with someone else and see if you can do theirs.
Can you think of any ways that you could improve your game?