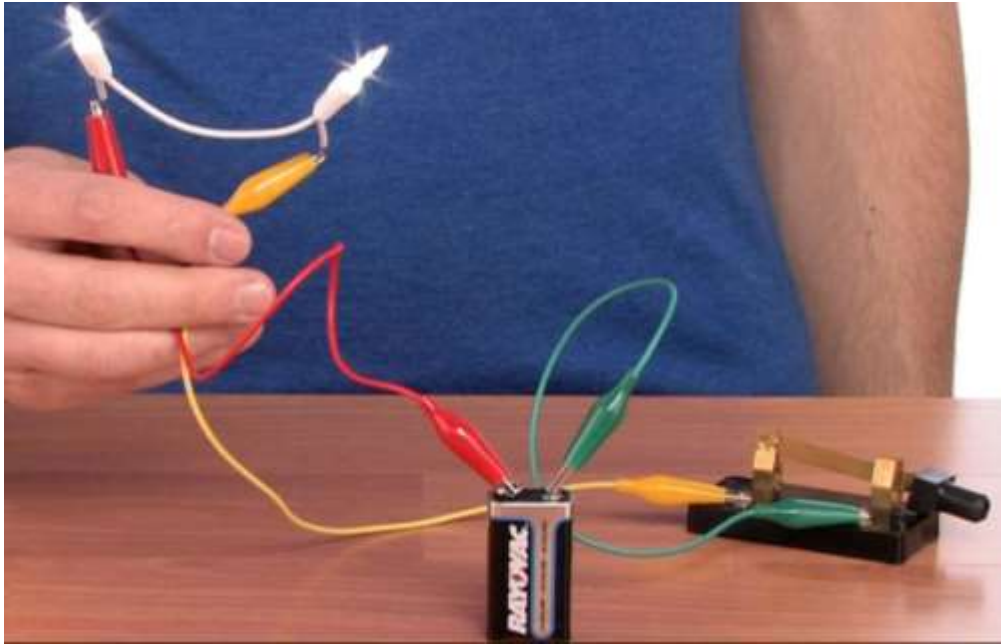


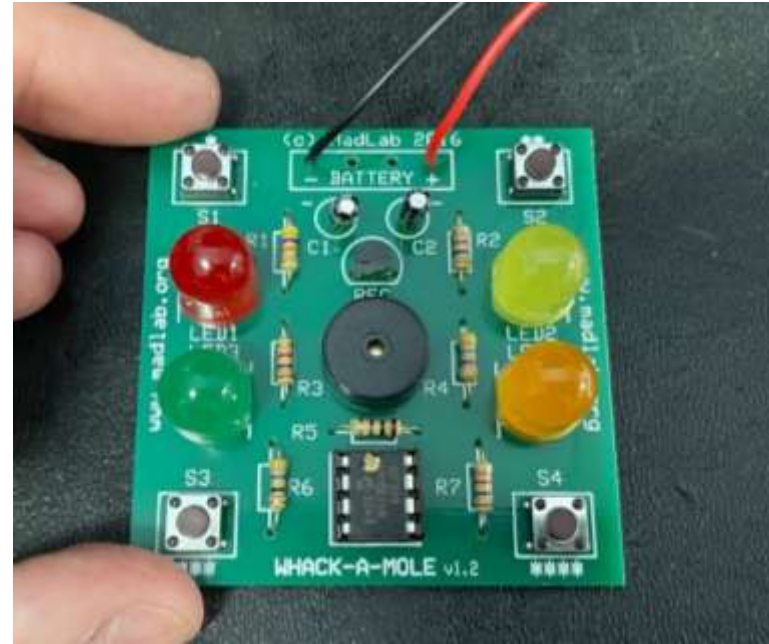
Soldering why is it necessary?

Circuits are made of many parts and to properly function they need to be connected by a conducting material

Wired Circuit

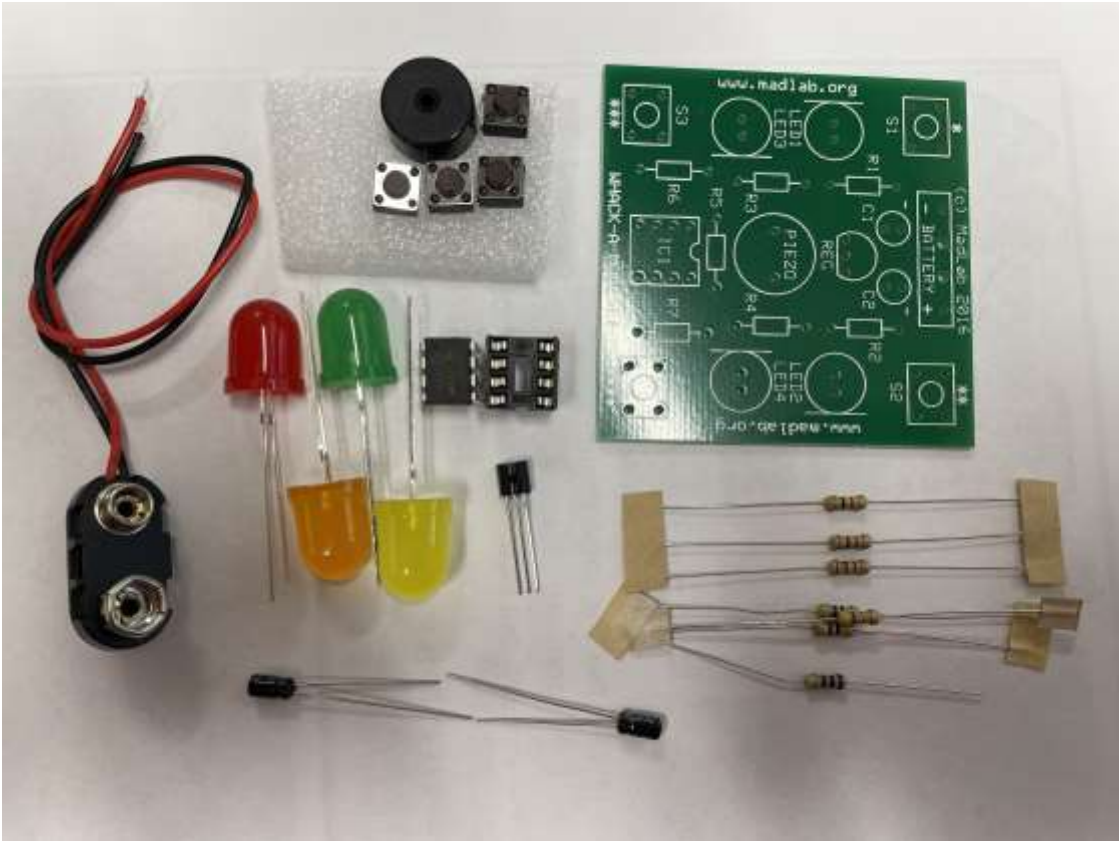


Printed Circuit Board (PCB)



Soldering why is it necessary?

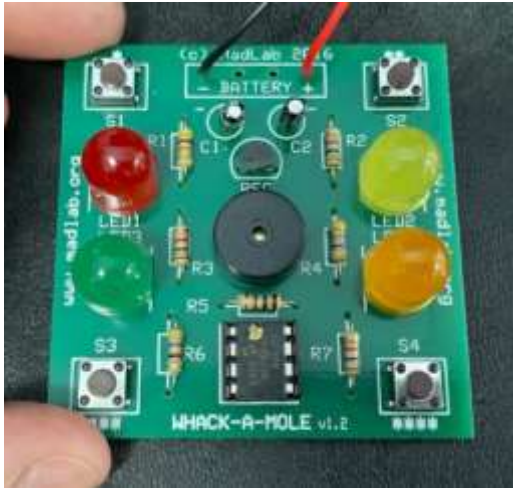
Circuits are made of many parts that need to be put together:
why not use a conventional solution?



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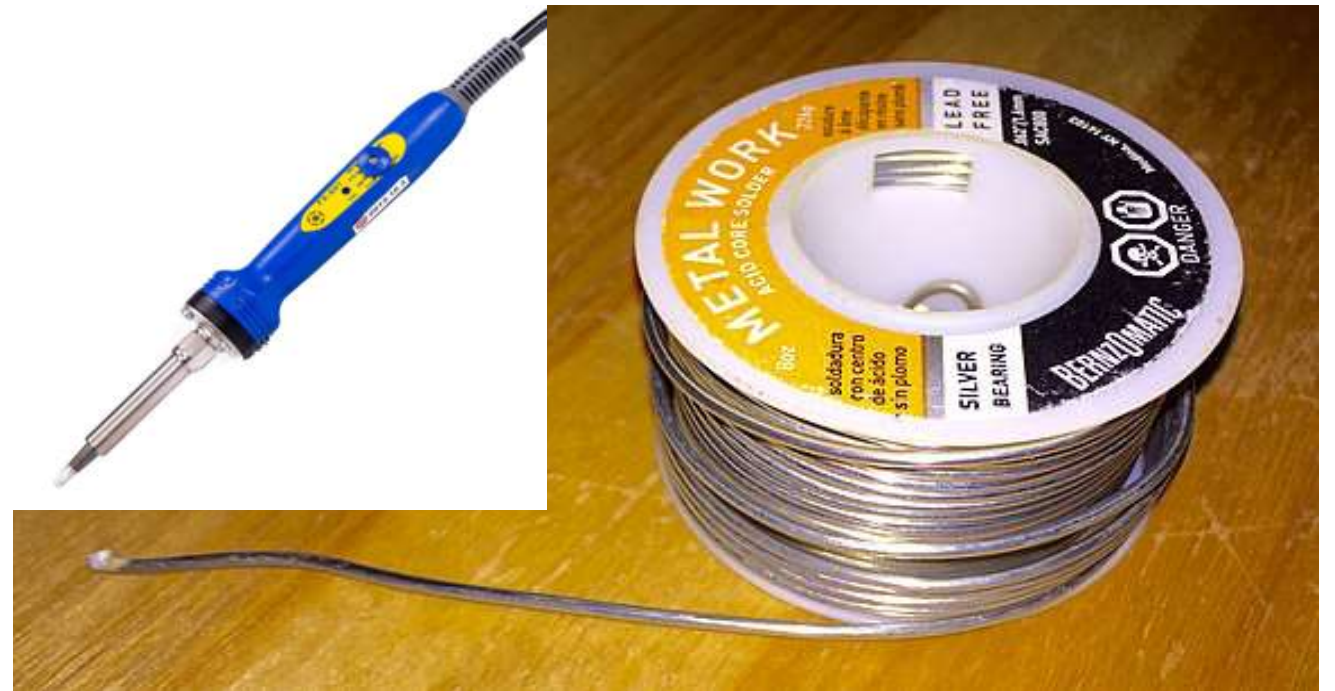


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Soldering why is it necessary?

We need a material that will both hold the items in place and complete the circuit (conductive).

We use a metal that has a low melting point (copper melting point 1,085 °C / 1,984°F) and then a device that will heat it to that point tin-copper -> melts @ 217°C



Dumb ways for Maria to get hurt (Safety Tips)



No touching the soldering iron! Not even to check it is hot!

Dumb ways for Maria to get hurt (Safety Tips)



Careful with your movements when you are holding it! It is not a pen

Dumb ways for Maria to get hurt (Safety Tips)



No pointing it or waving it around. It is not a pen!

Come on, tell us how to do it then!



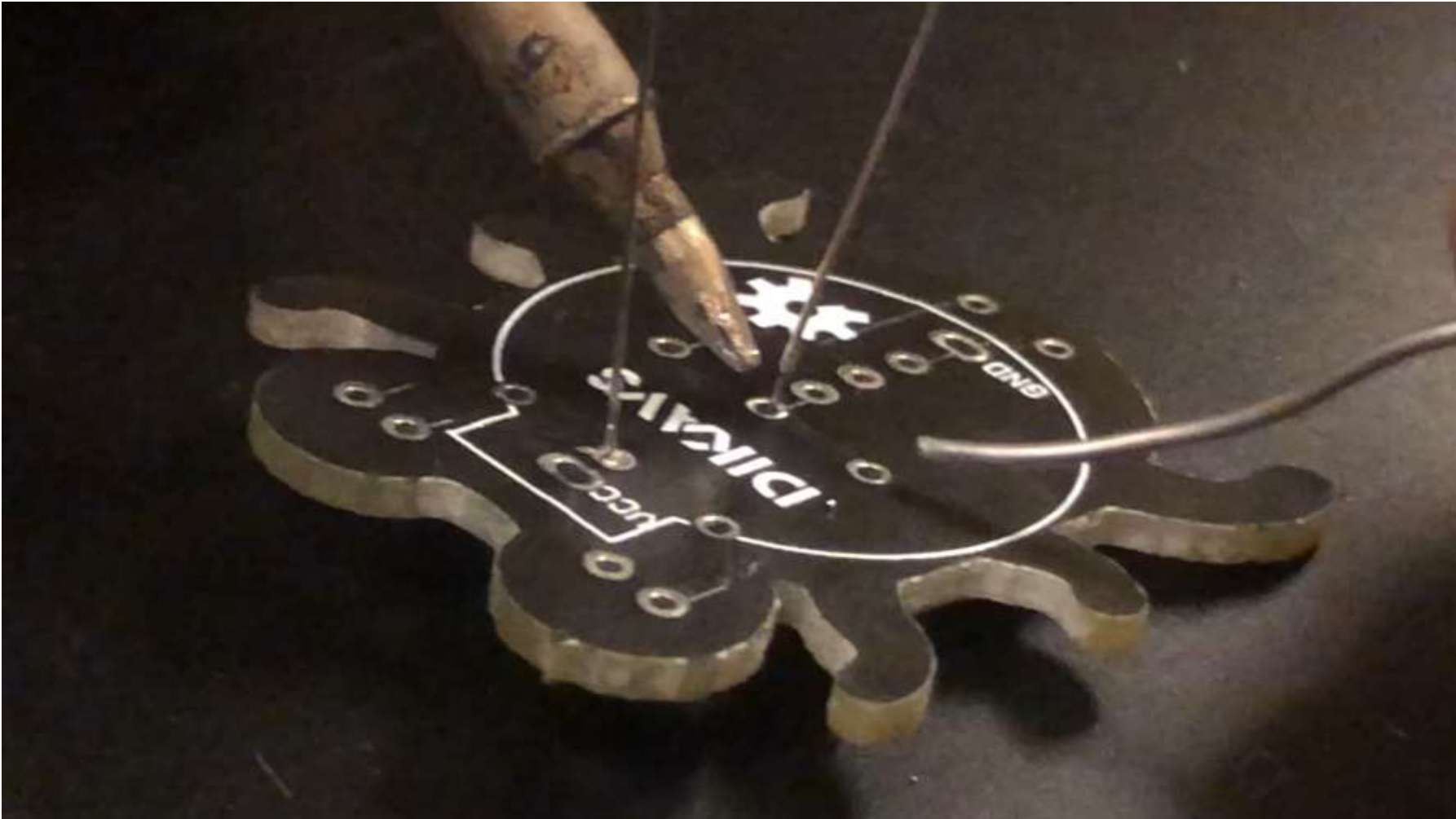
Hold it on the circuit, turn it off when you don't need it

Come on, tell us how to do it then!

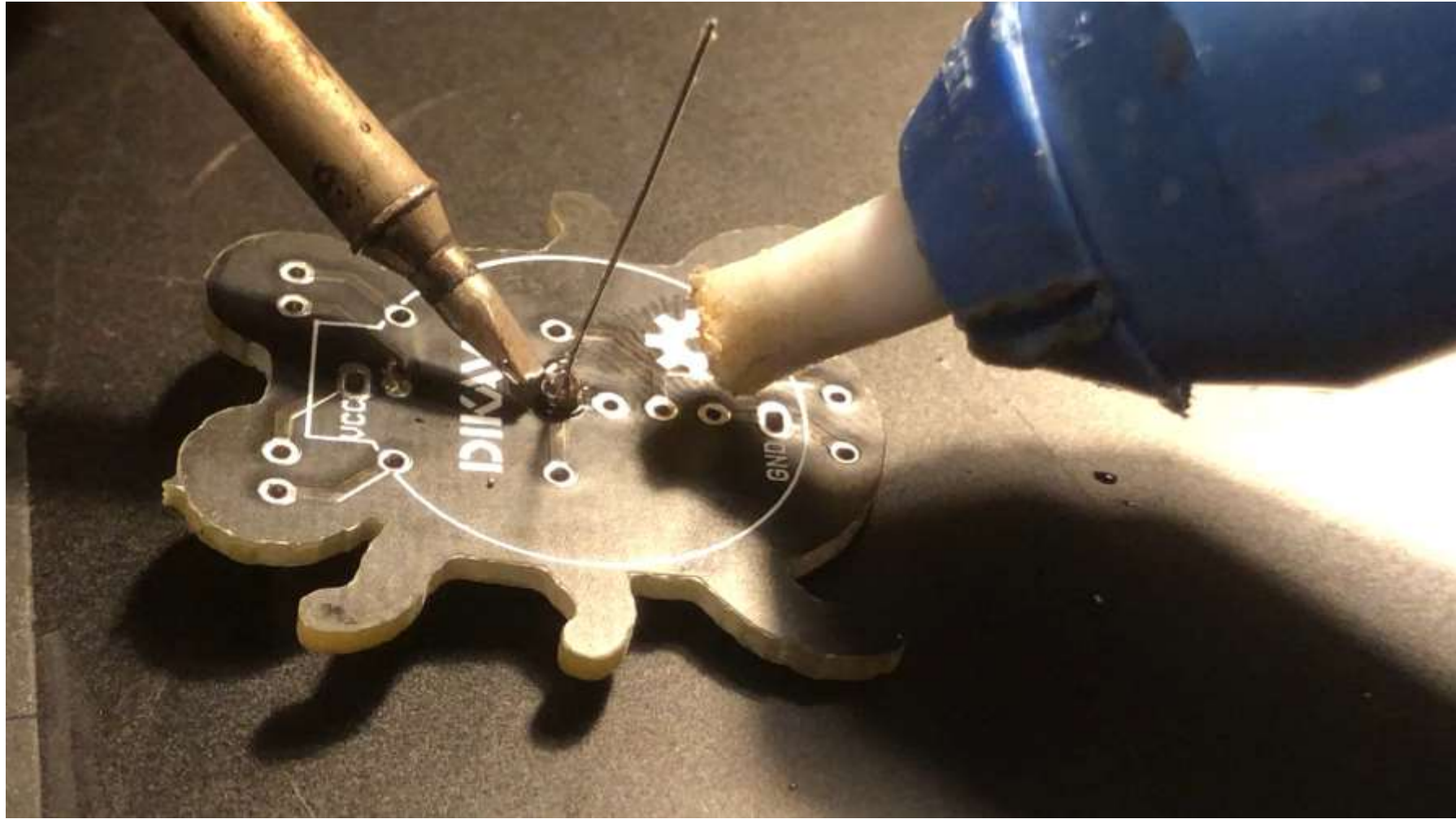
Other tips:

- No eating while soldering
- Careful how you hold the circuit! The soldering iron heats metal, the PCB traces are connected, other parts of the circuit will get hot when you hold the tip to the circuit!
- No holding the component while you solder it!
- If you need to remove the solder or a component use the solder pump. Too hard? Ask for assistance!

Heat the metal, not the solder



Removing Solder



Excess solder from soldering iron

