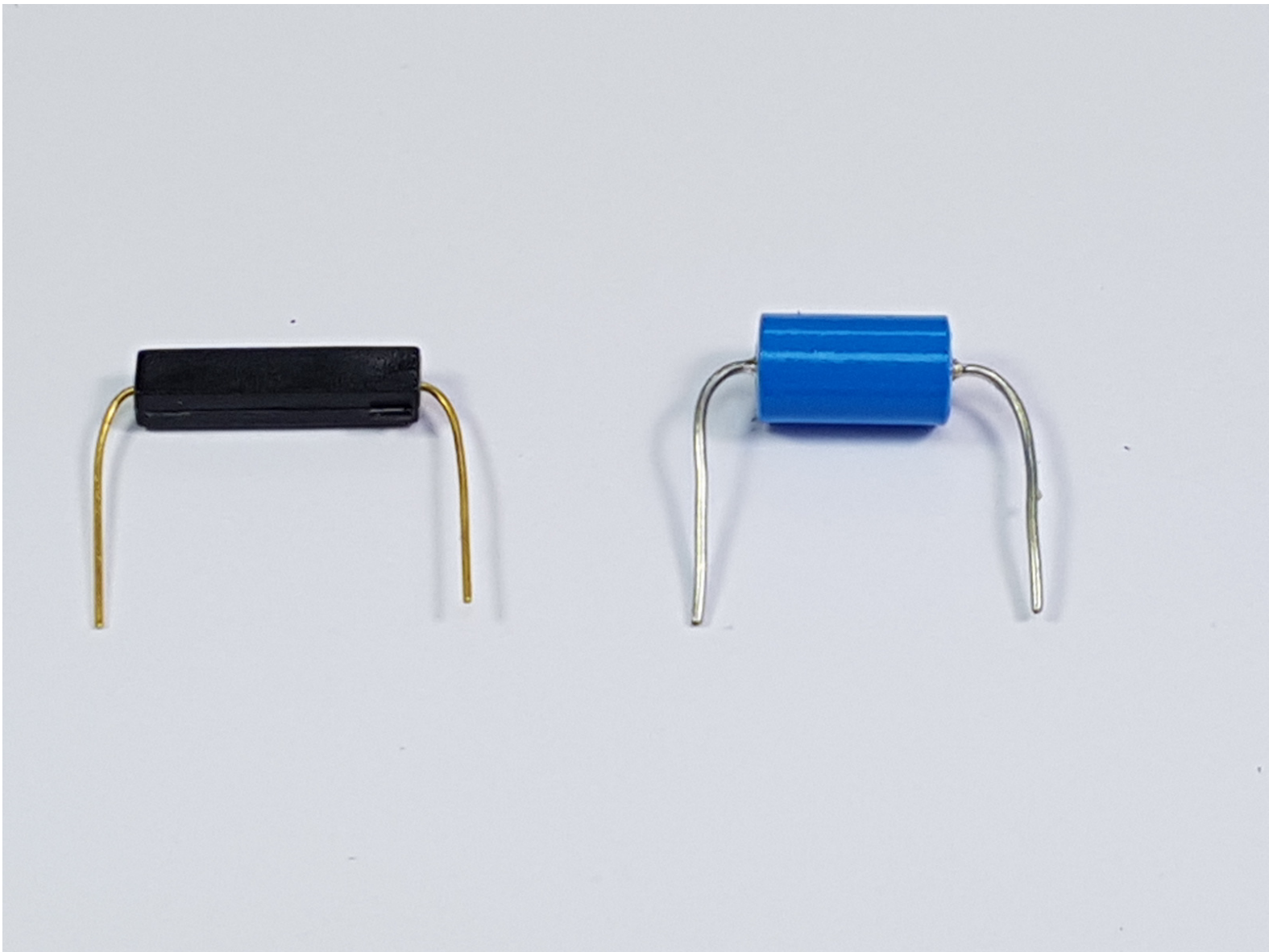
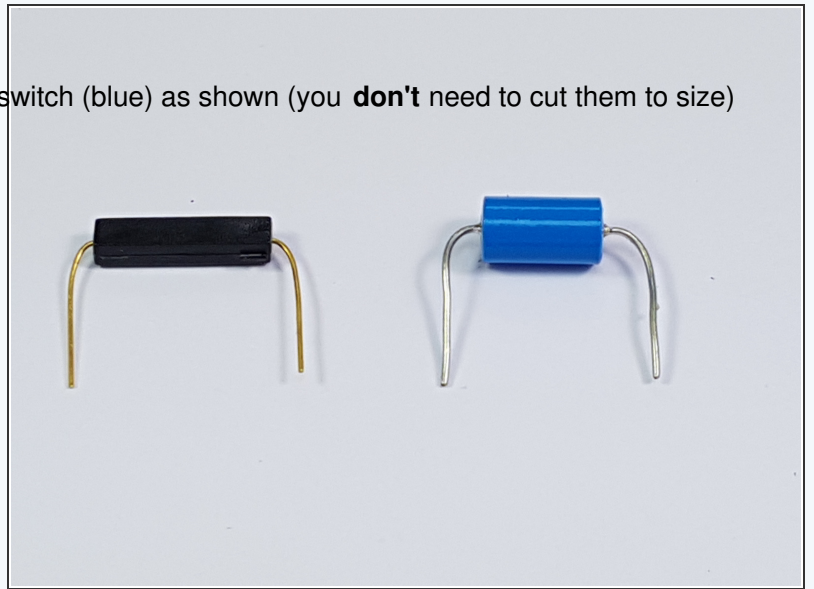


Inventor School Session 3 - Reed and vibration switches



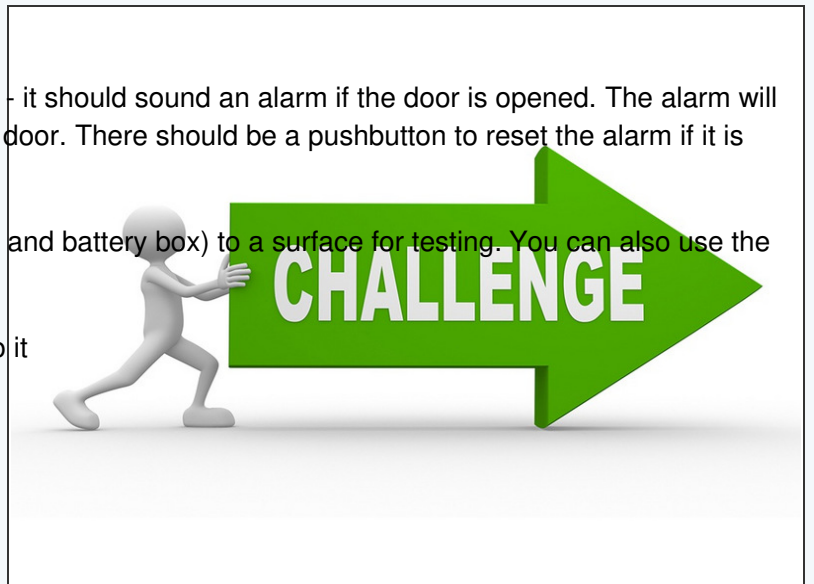
Step 1 — Prepare the components

- Bend the legs of the reed switch (black) and vibration switch (blue) as shown (you **don't** need to cut them to size)



Step 2 — A magnetic door switch

- Build a circuit and write a programme for a door alarm - it should sound an alarm if the door is opened. The alarm will be mounted on the door frame and the magnet on the door. There should be a pushbutton to reset the alarm if it is triggered.
- ① You can use bluetack to mount the alarm (breadboard and battery box) to a surface for testing. You can also use the bluetack to mount the magnet
- ① The reed switch works best if the magnet is **parallel** to it



— Vibration alarm

- Using your vibration switch, make a vibration alarm. It should sound an alarm for 5 seconds if triggered, and then reset itself back ready to detect motion again
- Once you've done this, take the 'steady hand' challenge - can you pick up your alarm and move it somewhere else without it going off? It's harder than it sounds!



— Vibration alarm with secret deactivator

- Now you are going to add a secret deactivator to your vibration alarm. Your alarm should work as normal, except if you move your secret deactivator (magnet) near the reed switch. Then your alarm will be silenced until it is reset using a pushbutton.

