Nintendogs Plush Toy Battery Pack Replacement

repair corroded or broken battery pack in toys. Although this guide is for a nintendog plush toy, it can be used for any plush toy with a battery pack problem.

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INTRODUCTION

Batteries left in toys for prolonged times can breakdown and corrode the battery pack. The rusty liquid created leaves a telltale orange stain on fabrics and around the battery pack. By the time you notice the stain the contacts within the pack are usually beyond repair but the toy is salvageable if you follow this guide. The reason this guide opens the entire toy is that it was impossible to tell what the function of any wire had before it had corroded from the battery contacts. (And the wires were not the usual red, black and white)

TOOLS:

- Phillips #0 Screwdriver (1)
- Solder (1)
- Soldering Iron (1)
- Seam Ripper (1)

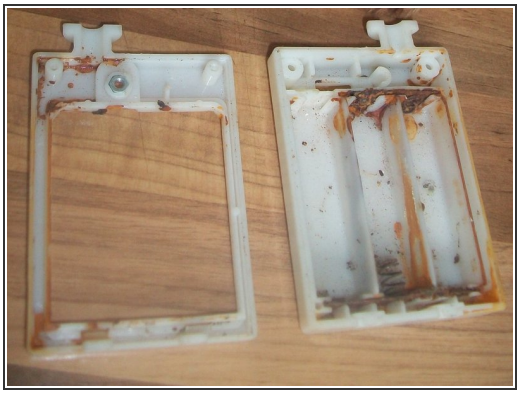
PARTS:

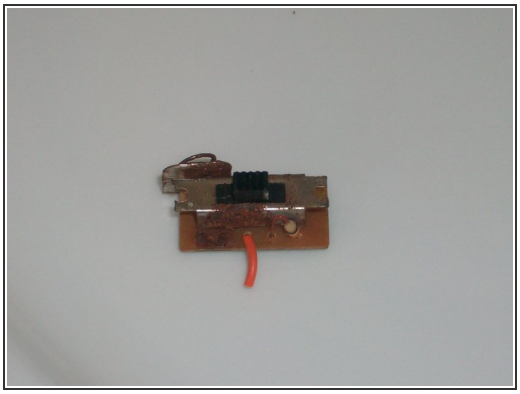
- AA battery pack (1)

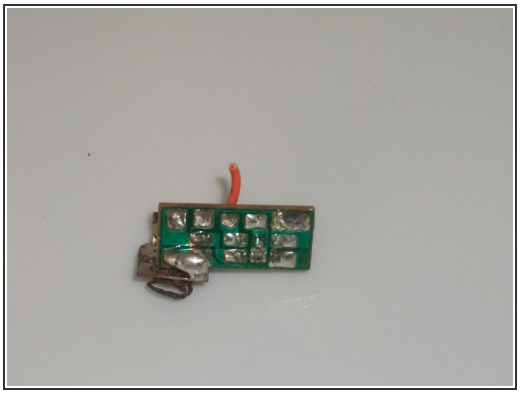
Step 1 — Battery Pack

- One happy looking but non-functioning robotic dog.
- Turning the toy over it can be seen that the velcro fastening and lining has been discoloured by the corroding batteries.

Step 2







- All that is left of a 3xAA battery pack and switch following the removal of corroded batteries.

Step 3

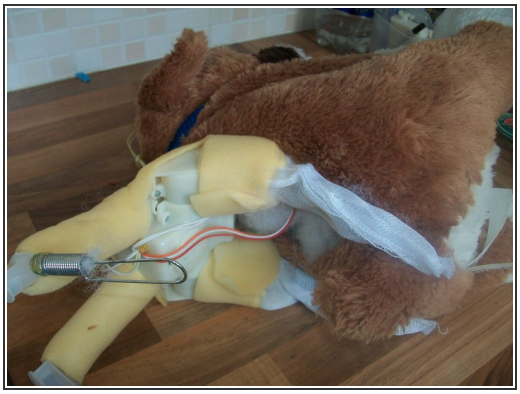


- Turn the dog to face away from you. Locate where the seam is. (The fur "nap" will be running away from the centre back) You may need to pull the fur to be able to see the stitching.
- Insert stitch unpicker into seam line and unpick from neck to tail.
- It should look like this.

Step 4

- Turn dog over and unpick stitching on fabric pouch that houses battery pack. (This will give you better access to thread wires through later but is optional)

Step 5

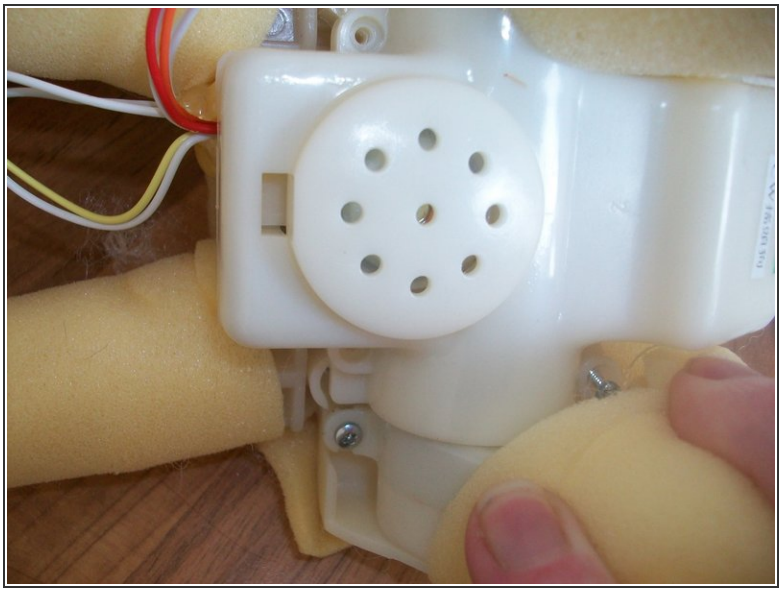


- Pull back legs from their fur covers. In this case they are merely springs/looped metal, other toys may have flexible plastic coated metal.
- You may have to trim/cut any filling that may have stuck onto the wire or springs to free the legs.
- Unpick 2 small stitches keeping the tail in position, then free from it from fur cover.
- Once tail and rear legs are free you can then pull the front legs free from fur cover. Trim filling as necessary.

Step 6

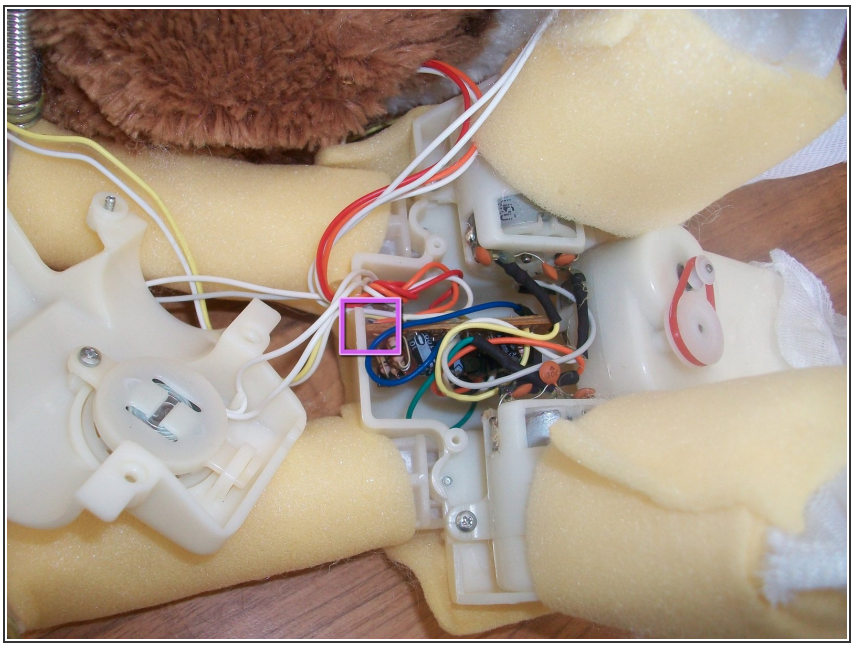
- Gently ease head from fur cover to gain access to wire clip.
- Unclip wire connectors for head.

Step 7



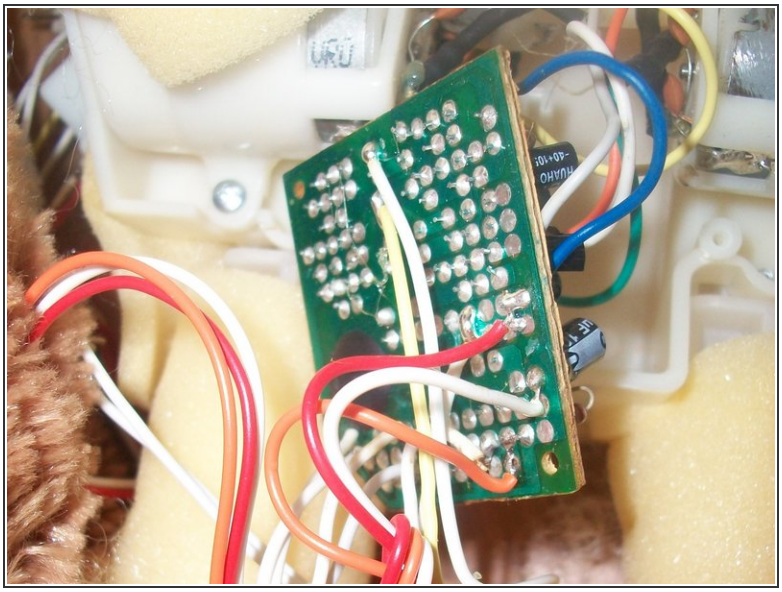
- Unscrew 4 philips head screws from cover.
- 2 of the screws are hidden under the foam covering the front leg joint.

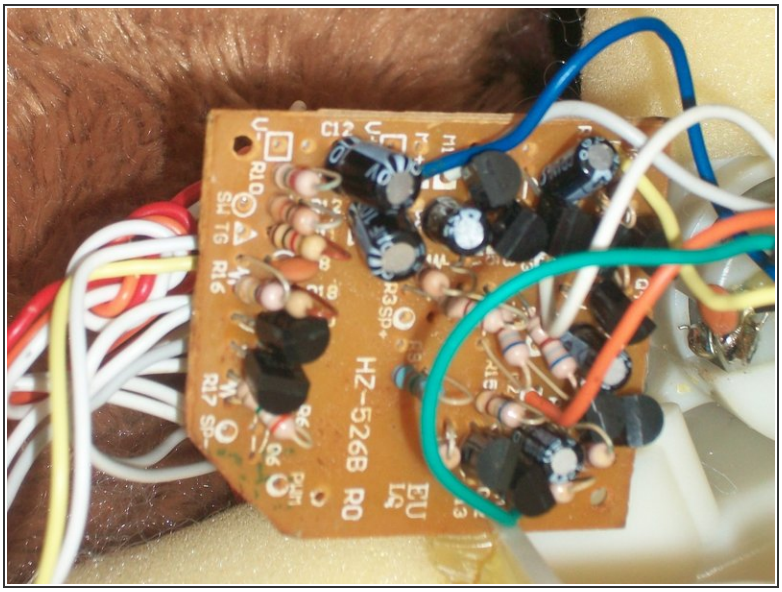
Step 8



- Spaghetti junction! The motherboard is sitting vertically inside the box. To lever it out use a flathead screwdriver between the uppermost board edge and the plastic casing. (marked on photo in pink) Push the screwdriver so that the edge of board lifts and you are able to grab with your fingers.

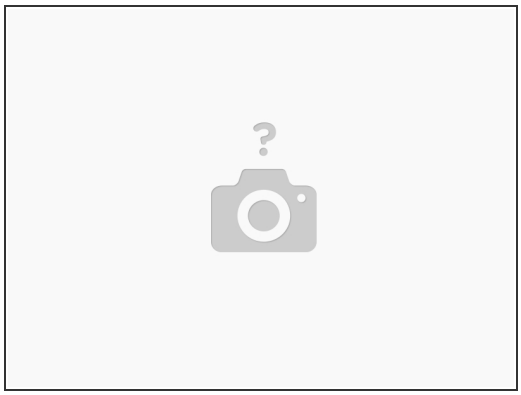
Step 9





- You can see here the 3 wires we will be working with but which wire does what?
- Turning the board over you will be able to see the red wire is labelled v positive, white wire is v negative and the orange is SW (Abbreviation for SWitch)

Step 10



- Carefully desolder the 3 wires for the old battery pack. Feed the new battery pack wires through from front of toy. Solder the new battery pack wires on ensuring that the correct wires are on the correct terminals of motherboard.
- replace motherboard in casing, secure with 4 screws.
- Reconnect wire for head, reinsert head into fur cover.
- Place front legs in fur cover, then rear legs and tail. Make sure all wire limbs are covered with filling.
- Use 2 strands of embroidery thread to close back seam.
- Use cotton thread running stitch to close pouch around battery pack wires.

Put new batteries in and enjoy your refurbished toy. Please ensure that as batteries start to falter that you change them or if toy is unused for any length of time the batteries are removed.