## Required Components

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| 1. | 2. | **BOM**   1. Monster Jam – El Toro Loco RC Car 2. (4x) 3.5 mm Female Mono Cable 3. 3D Printed Cable Clamp 4. (3x) AA batteries 5. (2x) AAA batteries 6. (2x) #4 3/8” screws |
| A black rectangular object with white arrows  AI-generated content may be incorrect.3. | 4. |
|  | 6. |

## Required Tools

* Phillips Screwdriver
* Wire strippers
* Soldering iron and solder
* Drill and 1/8” drill bit

## Required Personal Protective Equipment (PPE)

* Safety glasses

## Assembly Instructions

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| 1. Carefully remove the toy from its packaging without damaging it (we will be repackaging the toy after adapting). Locate and remove the 2 screws on the back of the remote control |  |
| 1. Carefully separate the two halves of the remote and remove the joystick toppers. | A black and blue electronic device  AI-generated content may be incorrect. |
| 1. To prepare the mono cable, use wire strippers to strip approximately 2 cm off the outer wire casing, revealing two internal wires. Repeat for all four mono cables.   **Note:** your mono cables may come prepped and ready to solder, with both wires revealed and metal on the ends exposed (skip steps 3-5). | A black wire on a white surface  AI-generated content may be incorrect. |
| 1. If there are 2 internal wires, strip approximately 0.5 cm off each wire. | A black wire with a red stripper  AI-generated content may be incorrect. |
| 1. If there are three internal wires (red, black, and exposed), strip off 0.5 cm of the red insulation and twist the red wire and exposed wire together. Strip 0.5 cm from the black wire. | A broken wire on a green surface  AI-generated content may be incorrect.A wire with a broken end  AI-generated content may be incorrect. |
| 1. Melt a small amount of solder over the exposed ends of the wire. | A black wire on a wood surface  AI-generated content may be incorrect. |
| 1. Using a 1/8” drill bit, drill 4 holes into the positions shown on the right. Remove any loose plastic. |  |
| 1. **Insert the mono cables through the holes.**   For each mono cable solder the two leads to the two matching circles shown on the image. Make sure to not get solder on a prong that is not meant to be soldered. | |
| 1. This is what the soldered mono cable will look like. | A close up of a circuit board  AI-generated content may be incorrect. |
| 1. After finishing each mono cable, test it. Insert the batteries into the remote and car and turn the car on. Plug in an assistive switch. When you activate the switch, the car will perform the function of the button you soldered the cable to (Forward, Backward, Left, Right).   If the car does not move, make sure the batteries are pressed in fully and check the solder connections.  If the car does not stop moving when you release the switch, check the solder connections. | A hand holding a green piece of electronic equipment  AI-generated content may be incorrect. |
| 1. When you have soldered all four cables, the PCB will look like this: | A close-up of a device  AI-generated content may be incorrect. |
| 1. Gather the mono cables, and put the cable clamp on, **ensuring that each wire is lined up with the proper symbol on the clamp.**   Insert the screws into the two holes on the back, and tighten to fasten the cable clamp. |  |
| 1. Place the joystick toppers back on. | A black and blue controller with wires  AI-generated content may be incorrect. |
| 1. Close the remote control and put the two screws back. |  |
| 1. Test the toy again. If it is still working properly, repackage the toy and the adapted toy is complete! | A black controller with a black cord  AI-generated content may be incorrect. |