# Required Components

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| A group of toys with a couple of people  AI-generated content may be incorrect.1. | A black pole with a white background  AI-generated content may be incorrect.2. | **BOM**   1. Pretex RC Truck and Tractor 2. Female Mono Cable (x2) 3. 10k pF Capacitor (x2) 4. AA Batteries (x5)   Note: This toy comes in a pack of 2. Component quantities listed are for one RC car. |
| 1. A close-up of a tan capacitor     AI-generated content may be incorrect. | 1. One duracell battery |

# Required Tools

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

# Required Personal Protective Equipment (PPE)

* Eye protection
* Ear protection

# Assembly Instructions

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| 1. Assemble materials and tools according to the materials list |  |
| 1. Remove the six screws that hold the controller together and remove the back. |  |
| 1. Drill two small holes in back of the controller with an 1/8’’ drill bit.   Ensure the holes have a diameter that matches the size of the mono cable you are using. | Back of the green remote showing two drilled holes. |
| 1. Slide the end of the mono cable into the hole such that the mono jack end is sticking outside of the controller.   Leave around 6 centimeters of the cable inside the controller and tie a knot in the cord to prevent it from sliding out. | A green and yellow plastic object with wires  Description automatically generated |
| 1. Strip 1.5 cm off the outside insulation of the mono cable.   If there are three internal wires, cut the additional silver wire leaving only the red and black wire.  Repeat for both cables | A person holding a wire  Description automatically generated |
| 1. Strip 1 cm off the red and black wires.   Repeat for both cables. | A person holding a small black wire  Description automatically generated |
| 1. Remove the circuit board and identify the pins for the original buttons that control the toy. | Insides of the remote, showing only the back half that has the electronics. A screw is circled in yellow. |
| 1. Solder the mono cable to the lower two pins (highlighted in red).   Solder the capacitor to the upper to pins (highlighted in yellow). | A green circuit board with wires and wires  Description automatically generated |
| 1. Repeat step 8 for the other button. | A green and yellow plastic object with wires  Description automatically generated |
| 1. Reassemble the toy with the six original screws. |  |
| 1. Label the female ends of each mono jack with the corresponding button they control. | A toy steering wheel on a wood surface  Description automatically generated |
| 1. Add batteries, attach switches and test the toy.   If it does not work, check solder connections and retest.  If the toy works, repackage the toy and it is complete! |  |