Thomas Ride on Train - System Diagram and Components

Overview of the electrical circuit and components

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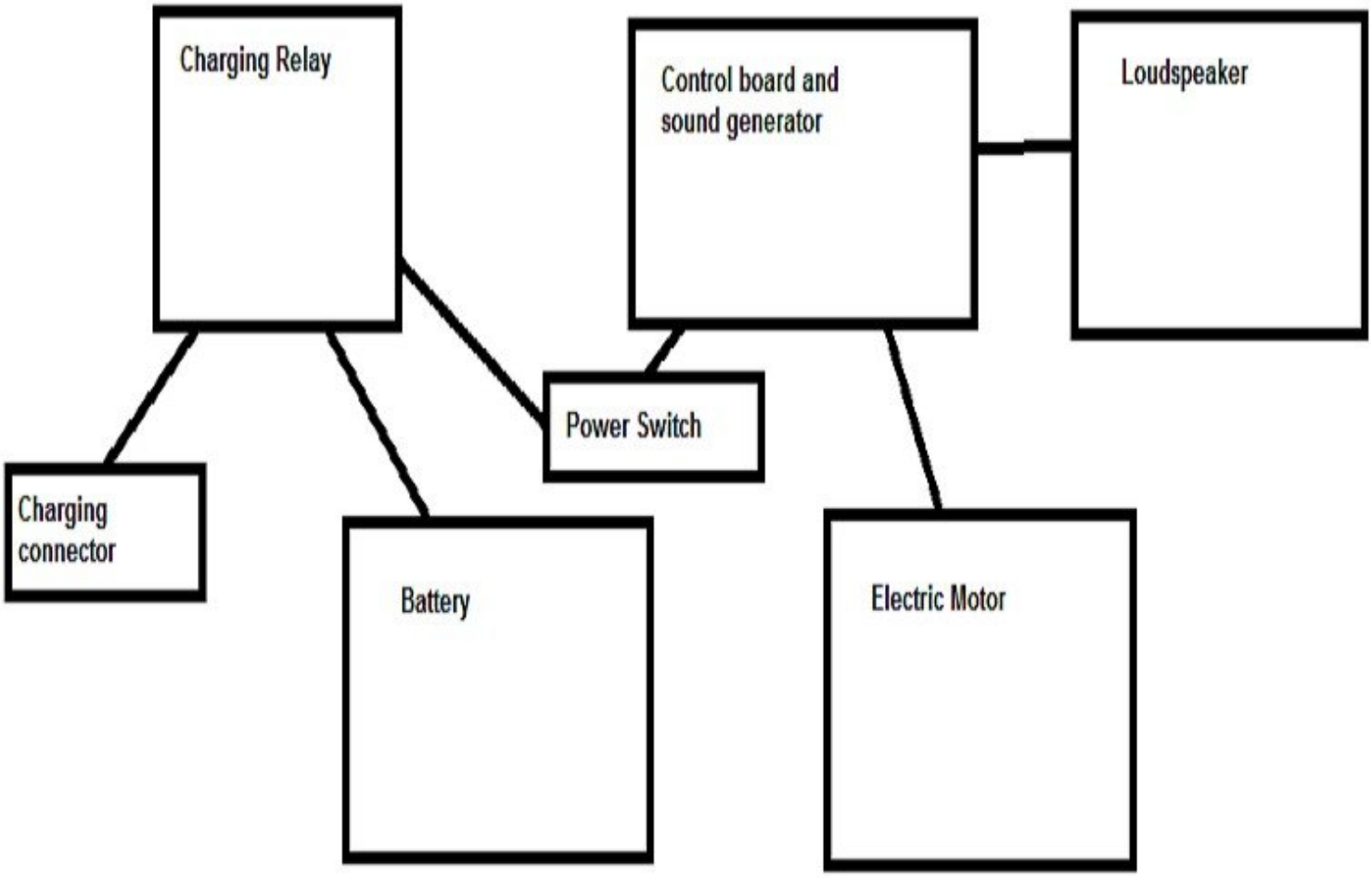
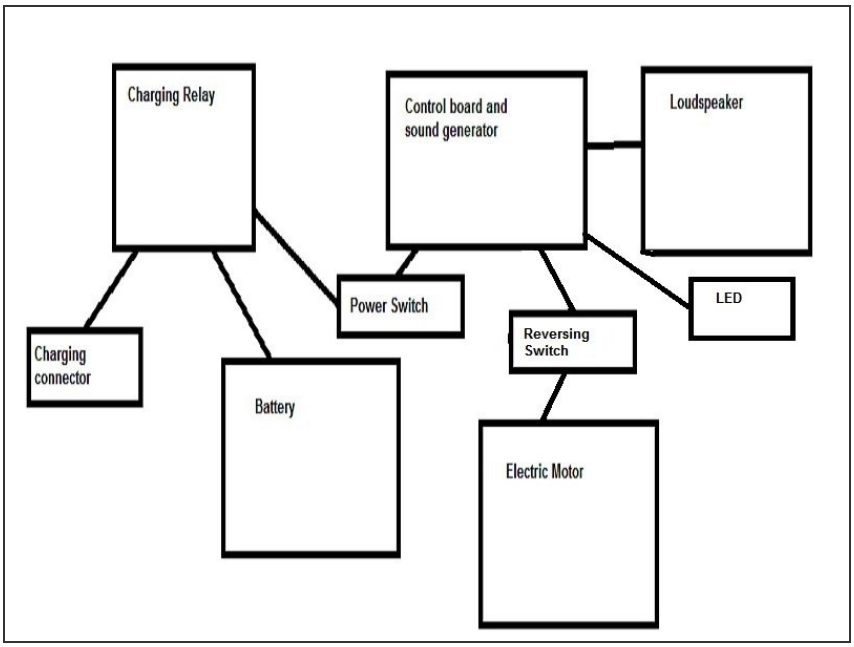
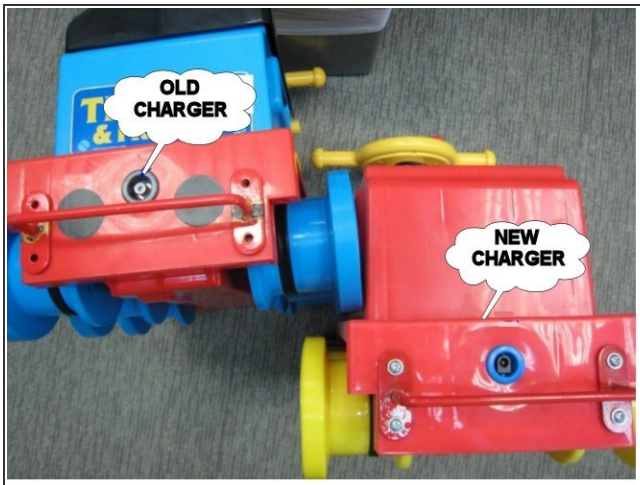


Step 1 — Thomas Ride on Train - System Diagram and Components



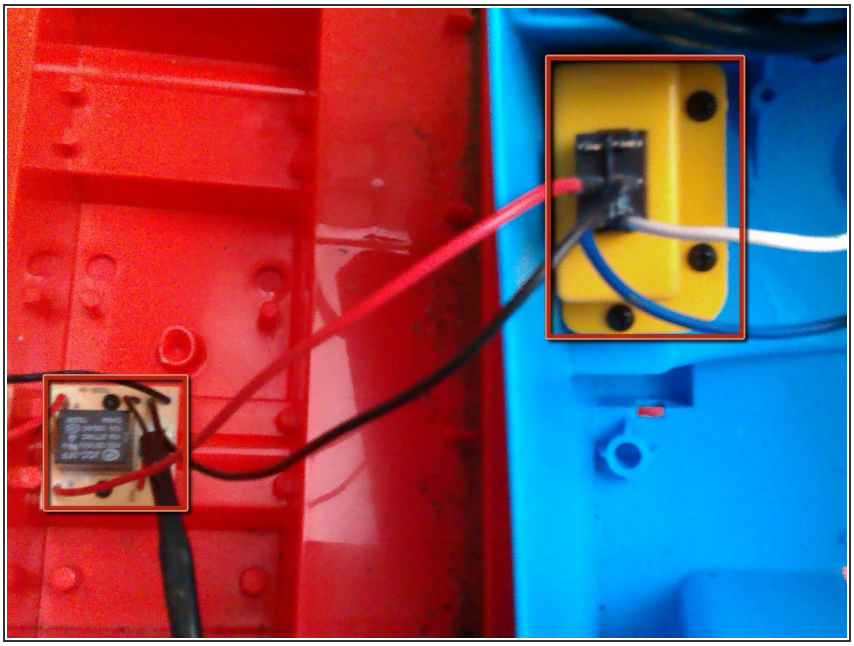
- **System Components**
- When power is applied to the charging connector it activates a relay which disconnects the power to the main circuits.
- The main powerswitch is under the large yellow lever and simply applies power from the battery to the control board in the console.
- A multipole switch is used to reverse the direction of the motor
- An LED in the console flashes with the sound
- The sound is provided by a loudspeaker in the base

Step 2



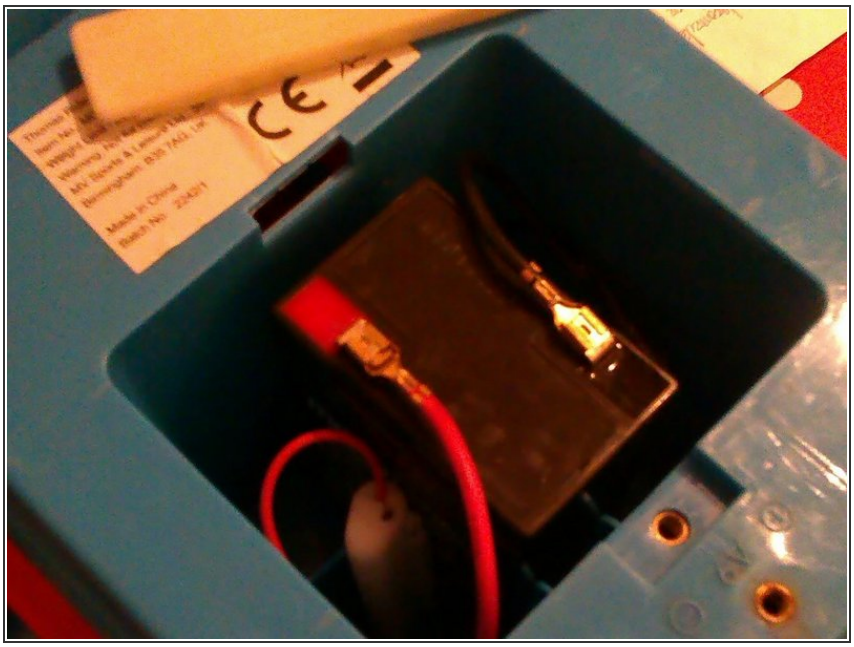
- **Charging Connector**
- The charging connector is on the rear of the train between the buffers
- My connector is a "old style" connector which is effectively a phono, the new style is a more conventional power connector

Step 3



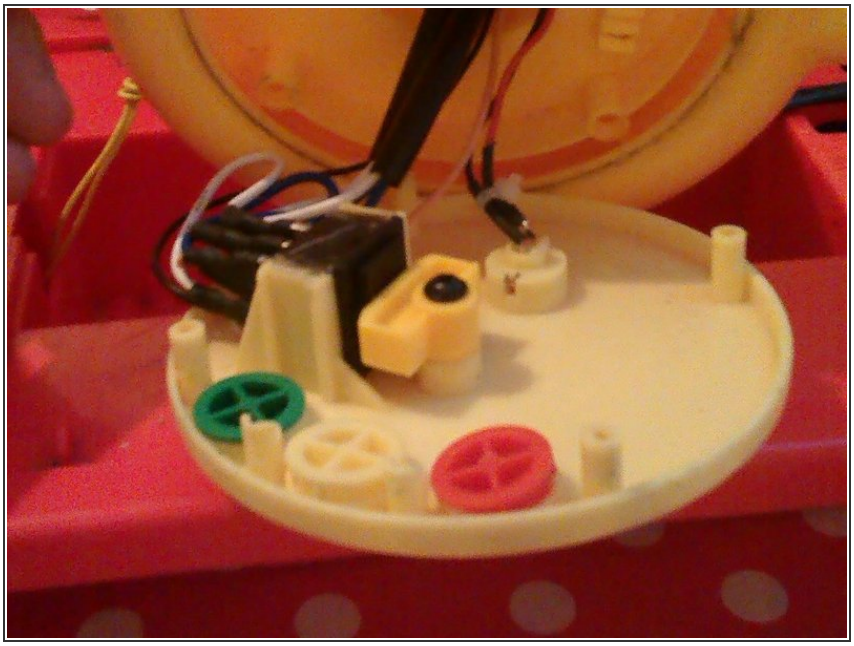
- Power Switch and Charging Relay Board

Step 4 — 6v Sealed Lead Acid Battery



- This battery has been replaced, the originals attach via a clip
- Note the fuse on the positive connector

Step 5 — Reversing switch and LED

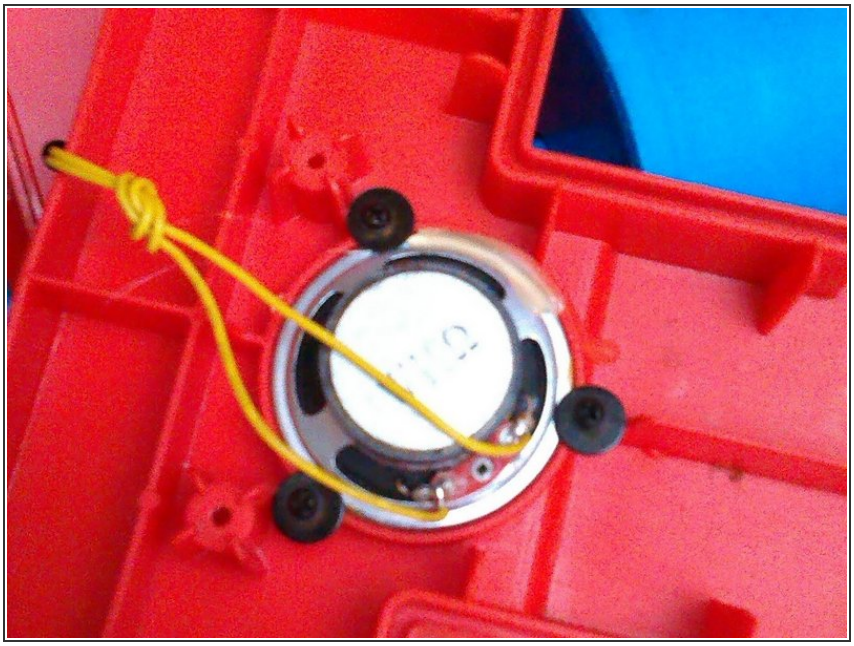


- This switch is controlled by the level on the console and switches the polarity of the motor connectors.
- Middle position is off, the other two positions are forward and backwards
- If you are replacing the LED don't forget that the polarity of the wires is important

Step 6 — Control board

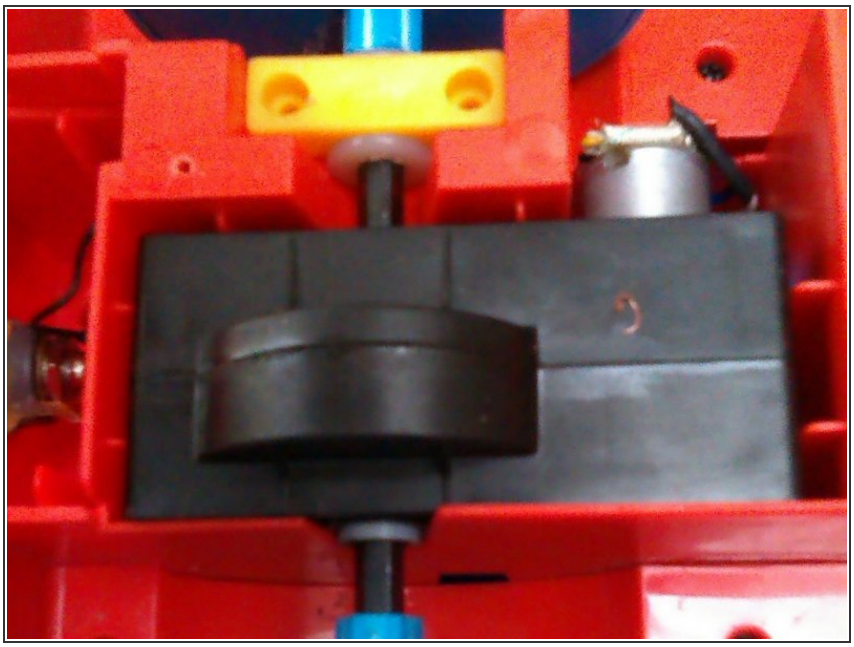
- Has three switches to activate the music and connectors leading off to the motor, speaker, LED and battery

Step 7 — Loudspeaker



- This is a 16ohm speaker

Step 8 — Motor



- 6v electric motor with capacitor for noise and spark suppressor wired across the terminals

To reassemble your device, follow these instructions in reverse order.