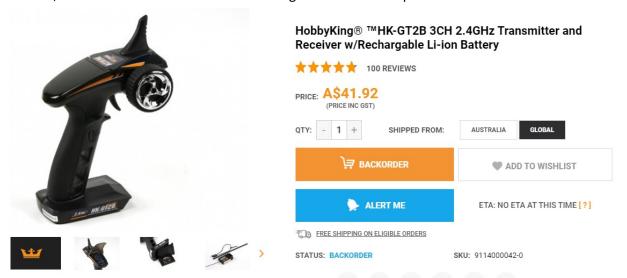
## Red Fred – Internals arrangement, as rebuilt in April 2021

After experiencing ongoing irregularities with the transmitter / receiver and sound system for this vehicle, I decided to rebuild the internals using off the shelf components that I can work with.



A Transmitter sold for use with model cars was purchased. The Trigger can be pulled back, return to centre or pushed forward to control direction and speed when used in conjunction with a matching Two Way Electronic Speed Controller. The Wheel is intended to be used to steer a vehicle. There is a third channel activated by a switch on the pistol grip. It has not been utilized for this model. In my case I removed the wheel and replaced it with a lever which now activates to HORN sound. Note that these units are intended to be powered by 7.4 volts LiPo batteries only (as since fitted).



The 6 cells AA NiMh (7.2 volts) sat over the Rx. The ESC sits under the frames under the motor. Update, in 2023 a 2S nano tech 1000mAh LiPo was used to replace the 6 AA NiMh cells in a tray.

Motor running sound card sits vertically just in front of the driving wheels.



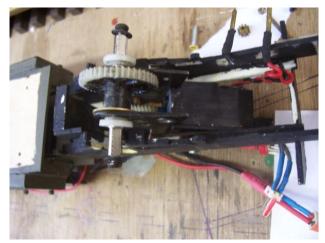
Horn sound card, speaker & servo switch were in roof arc cavity, now on frame near front bogie.

The newer 2S nano tech 1000mAh LiPo replaced 6 AA NiMh.

## Red Fred – Internals arrangement, as rebuilt in April 2021

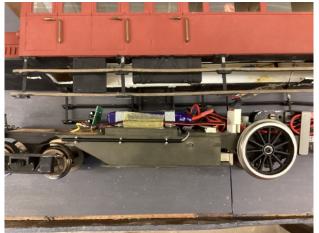
An ongoing issue with this scratch-built model has been the gearbox.

The motor is in line with a WORM that drives an idler gear thence the main gear on the axle.





Periodically the universal link between motor and worm needs maintenance to retighten.





The headlight LED has wires attached via the dark grey plug & socket on right in this photo.





Two screws hold the cabin to the frame that has front bogie and drive wheels.

Red Fred is ready for traffic again.

The real Rail Motors are depicted in the following photographs.

















## Red Fred – Internals arrangement, as rebuilt in April 2021

My model of Red Fred.





