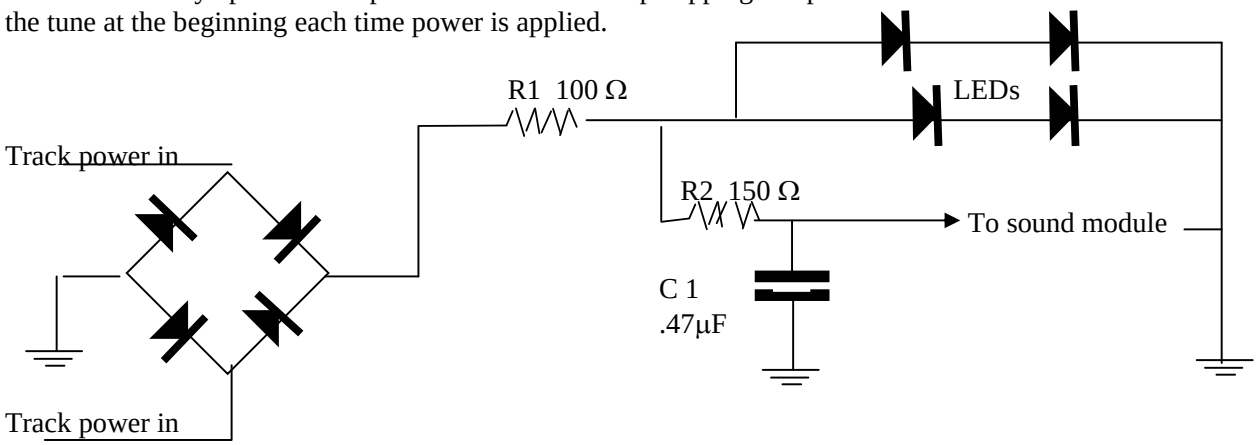
IRREGULAR FEATURE

Fun and frivolity

Anyone who either went to Riverton or the display we put on for the Christmas show at Hills Industries would have probably seen (and probably been driven mad by) my Christmas train. Now right from the start let me say that it always was and always will be just for the kid's fun not meant to be serious. After having made and displayed it I thought maybe some of you would be interested to know how it was done.

I started with an old Triang well wagon. The first task was to replace those horrible wheels! Because also I needed to pick up power from the track I used my tried and tested method of the new BACHMANN wheels and PECO brass pinpoint bearings (part number P 30). The wheels are made as two metal halves joined by a plastic tube, just right for all wheel power pick up. The bearings are prepared by making a loop of tinned copper wire in the shape of a 'p' and soldering it around the outside of the lip. The extra bit is for connection to the rest of the circuit. These are then placed in the recess that the wheels originally ran in, a quick touch of the soldering iron and they nestle down quite nicely. Having got the power from the track it is fed through a diode bridge, so that no matter which way the power controller is set, one side of the circuit is always positive and the other always negative. This is necessary, as light emitting diodes (LEDs) don't like reverse voltages. This voltage is then limited by resistor (R1). I wired the LEDs in series pairs as this allows double the voltage to be applied. The size and wattage of R1 will depend on the number of LEDs in the circuit, in my case 20 in pairs; R1 is a 100 Ω ½ watt. The resulting voltage is then fed to both the parallel / series LEDs and then to the sound module via a resistor capacitor network (R2 150 Ω ¼ watt C1 .47 uF). R2 limits the voltage to around 4 volts and C1 smoothes out any spikes or dropouts which would keep tripping the power on reset of the module which starts the tune at the beginning each time power is applied.



The sound module I got from an old Christmas card. (It pays to be a Bower bird sometimes!) I cut off the battery clips and wired it into the circuit mounting it under the tree. Unfortunately it is not quite loud enough; the sound being muffled somewhat by the tree. The tree is simply a cone of paper covered in green flock with a few sequins added for sparkle. Both electrical and mechanical connection between the wagon and tree is achieved by using an earphone jack and socket from an old transistor radio. Thus, while not intentional, the tree is able to rotate as it bumps along the rock face on the fiddle yard modules without ripping out the wires. (Yes, I know, it's a little over width on the loading gauge, but the kids liked it!) This also makes it possible to remove the tree for safe transport. The rest of the train is simply flat wagons with paper billboards suitably weighted with lead and decorated with seasonal greetings. Thanks to my son, David, for the enthusiastic help with this part.

Wishing you all a Merry Christmas and a happy New Year.

Catch you down the track…Tony Mikolaj.