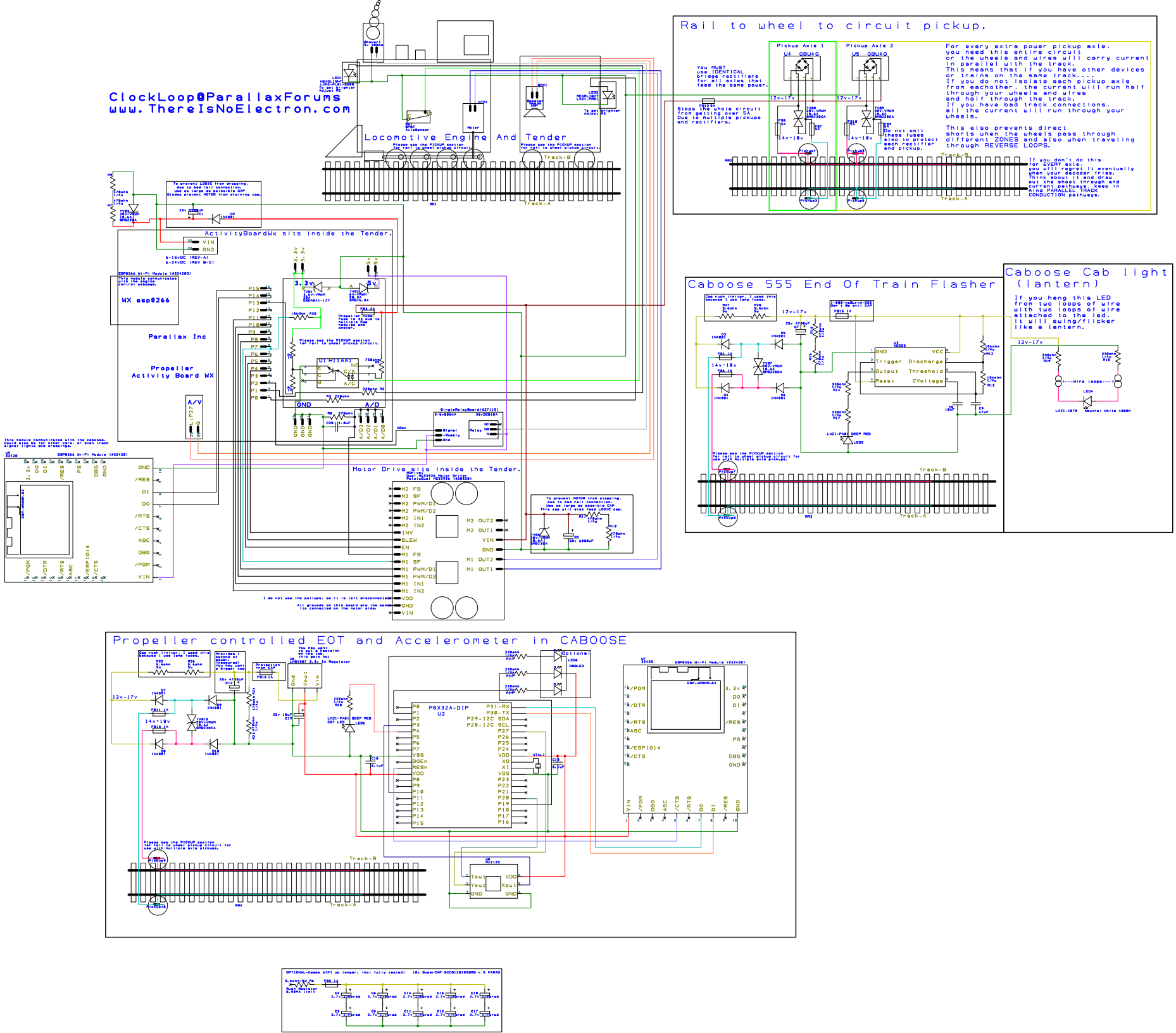
ClockLoop@ParallaxForums
www.ThereIsNoElectron.com
Locomotive Engine And Tender
Rail to wheel to circuit pickup.
Pickup Axle 1
Pickup Axle 2
For every extra power pickup axle, you need this entire circuit or the wheels and wires will carry current in parallel with the track. This means that if you have other devices or trains on the same track.... If you do not isolate each pickup axle from eachother, the current will run half through your wheels and wires and half through the track. If you have bad track connections, all the current will run through your wheels.
This also prevents direct shorts when the wheels pass through different ZONES and also when traveling through REVERSE LOOPS.
If you don't do this for EVERY axle, you will regret it eventually when your decoder fries. Think about it and draw out the shoot through and current pathways, keep in mind PARALLEL TRACK CONDUCTION pathways.
You MUST use IDENTICAL bridge rectifiers for all axles that feed the same power.
Stops the whole circuit from getting over 5A Due to multiple pickups and rectifiers.
Do not omit these fuses also to protect each rectifier and pickup.
Track-B
Track-A
ActivityBoardWx sits inside the Tender.
WX esp8266
Parallax Inc
Propeller Activity Board WX
Motor Drive sits inside the Tender.
Caboose 555 End Of Train Flasher
Caboose Cab light (lantern)
If you hang this LED from two loops of wire with two loops of wire attached to the led, it will swing/flicker like a lantern.
Wire loops
Propeller controlled EOT and Accelerometer in CABOOSE
P8X32A-DIP
U2
Optional
ESP-WROOM-02
Track-B
Track-A