

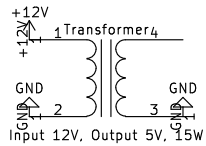
Circuit uses 12V input from cigarette lighter style plug in tractor cab.

IOIO Board can use 5-15V on its power connector.

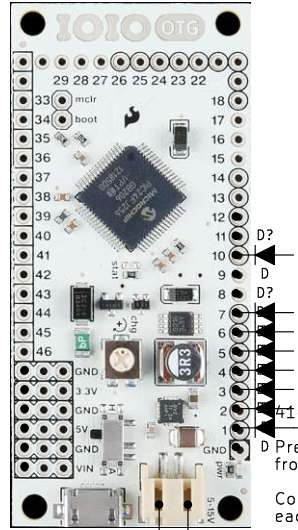
Recommend using 12V - 5V transformer 15W for IOIO board & op-amps

Also recommended:

Toggle Switch & Fuse for 12V input.



Use 5V output for Op-Amps and IOIO board



4148 Diodes

D Prevents board pull down from interfering with op amp

Connect each diode to each out on each op amp

Micro: USB to USB Adapter w/ Bluetooth Dongle

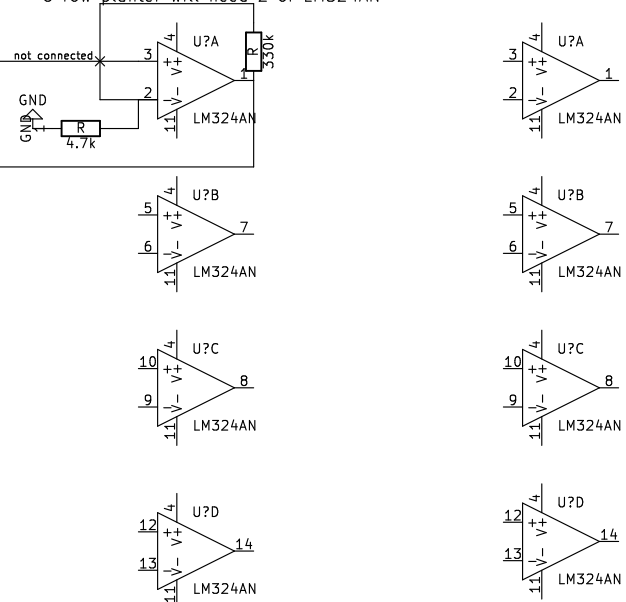
+5V
GND
Use 5V From Transformer

37 pin planter harness. Pins 1-8 used for signal input.

LM324 each have 4 op-amps.

Gain is determined by the ratio of the resistor to inverting side and resistor from output to inverting.

8 row planter will need 2 of LM324AN



37 PIN HARNESS CONNECTOR NOTES:

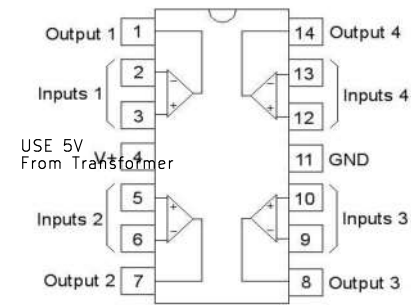
Use a multimeter to determine which pins are + and - on your harness.

Typically for older planters: JD Computer-Trak 100, 200 and 300 monitors built 1981-1986. pin 27 is + and 28 -

For newer monitors: Dickey-John PM1000, PM3000; Deutz-Allis POM100, POM300; Kinze KM1000, KM3000; White SM1000, SM3000; all Vanguard 26 is - and 24 is +

For JD Computer Trak 100, 150, 200, 250 and 300 monitors built 1986 and after can be different. Look at sensor red wire and black and use multimeter to check for continuity to harness pin.

All of the typical red eye and double eye sensors seem to handle 12V fine.



LM324 Schematic

Sheet: / File: FC.sch email investordirection@gmail.com for guidance

Title: Farm Chief Planter Monitor Schematics

Size: A4 Date: KiCad E.D.A. kicad 4.0.2-stable Rev: 1/1