



**D-Bot Core-XY 3D Printer
Electrical Configuration Diagram**
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(Not to scale)

Application Notes

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| 1 | The indicated wires are: Yellow: X Endstop signal. Black1: Ground for endstop and heatsink fan. Red1: 5V for endstop. Black2: Switched ground to control part fan. Red2: 12V power for heatsink fan and part fan. Connect heatsink fan only to Black1 and Red2. |
| 2 | The Y and Z endstops are located close to each other and can both be connected to the same 5V (Black and Red) power feed. |
| 3 | If the optional LED controller and remote is not used, the following alternate wiring can be implemented: Red, Green, and Blue connect to ground and White connects to 12V. In this configuration, the LEDs will be on whenever the power supply is on. |
| 4 | The line voltage power jack and switch are shown with wiring and color conventions for 120VAC 60Hz electrical systems. The power jack module is used to provide a main shut off point, a master series fuse, and a removable cord connection. |
| 5 | Thermistor wiring should be implemented to avoid induced noise so that temperatures can be read as accurately as possible. Each thermistor should be connected to the source as a dedicated pair of wires, ideally twisted pair. |
| 6 | A cooling fan mounted above the control board, directed downward, is recommended to reduce risk of stepper driver overheating. Heatsinks should be placed on each stepper driver chip. The connection for the fan is 12V, header pins need to be installed. |
| 7 | Each pair of outputs, D8 D9 and D10, have a dedicated positive connection to the 12V power supply and the negative terminals are controlled by three transistors. Ground connections from these ports cannot be shared but 12V connections can be shared. |
| 8 | Main 12V power to the control board is supplied via the 5A terminals. The 11A terminals feed only the D8 output for a heated bed. With relay control, the 5A and 11A terminals can share a 12V power feed. 5A and 11A terminals have a common ground on the board. |