**Motors (Drives) – use proper crimps and Molex 2.0 connectors**

X-Axis wired using Molex connectors to molex end of wires that go into I/O board to the X-Axis connections on the Duet 2 wifi X-axis. Check for continuity between connection wires to ensure you locate each phase. Keep A together and B together

Y-Axis wired using Molex connectors to molex end of wires that go into I/O board to the Y-Axis connections on the Duet 2 wifi Y-axis. Check for continuity between connection wires to ensure you locate each phase. Keep A together and B together

Z-Axis wired using Molex connectors to molex end of wires that go into back of PDB board to the Z-Axis connections on the Duet 2 wifi Z-axis. Check for continuity between connection wires to ensure you locate each phase. Keep A together and B together

Extruder - This is the settings for the Geckodrive G320X step dir wiring pins. Use the step 10 and dir 10 outputs to connect to the step and dir inputs on the Geckodrive.

**G320X PINOUT** – **FOLLOW GECKDRIVES INSTRUCTIONS PRECISELY WHEN CONNECTING OR YOU COULD DAMAGE THE MOTOR OR DRIVE!!!** [**https://www.geckodrive.com/support/g320x-rev-10**](https://www.geckodrive.com/support/g320x-rev-10)

TERMINAL 1 Power Ground 🡪 Connect the negative (black) lead of one of the outputs of the 24 V power supply to this terminal.

TERMINAL 2 Power (+) 🡪 Connect the positive (red) lead one of the outputs of the 24 V power supply to this terminal.

TERMINAL 3 Armature (-) 🡪 Connect to J13 pin 33.

TERMINAL 4 Armature (+) 🡪 Connect to J13 pin 35

TERMINAL 5 ERR/RES 🡪 Connect to Terminal 7 to disable Error states.

TERMINAL 6 Encoder Ground – the encoder is already powered by the PDB no need to connect.

TERMINAL 7 Encoder +5VDC – The encoder is already powered by the PDB no need to connect.

TERMINAL 8 Encoder Channel A 🡪 Connect to J13 pin 29

TERMINAL 9 Encoder Channel B 🡪 Connect to J13 pin 31

TERMINAL 10 Direction 🡪 Connect to duet dir 10 pin (CONN\_LCD)

TERMINAL 11 Step 🡪 Connect to Duet step 10 pin (CONN\_LCD)

TERMINAL 12 S/D Common 🡪 Connect to Duet GND (CONN\_LCD)

**Endstops**

X Endstop xstop 🡪 Connect to J15 pin 2

Y Endstop ystop 🡪 Connect to J15 pin 4

Z-probe (Endstop) duex.e3stop 🡪 Connect to J15 pin 8

**Accelerometer**

LIS3DH accelerometer

Wire# Accelerometer signal Cat5e Jack Duet 2 Wifi signal (Temp Daughterboard)

1 not connected N/C not connected

2 GND Brn/Wht GND

3 not connected N/C not connected

4 SCL Org SPI\_SCK

5 SDA Blu SPI\_MOSI

6 SDO Blu/Wht SPI\_MISO

7 INT1 Grn SPI.CS3

8 3V3 Brn +3V3

9 CS Grn/Wht SPI.CS4

10 not connected N/C not connected

Follow instructions for connections to SPI.CS3 and SPI.CS4 and additional connections found on the temp daughterboard connections. https://duet3d.dozuki.com/Wiki/Accelerometers. Use CAT5e socket connectors from a place such as Home Depot and a 1 m Cat5e ethernet patch cable for running the wiring to the accelerometer to be mounted on the print head. Use the screw for the small cable clamp and some double sided foam tape to fix the accelerometer on the back of the print head.

**Heaters**

Chamber Heater Thermocouple duex.e2temp with 1K ohm resistor between your thermocouple amplifier output and the thermistor input, and 2K ohm resistor from thermistor input to ground 🡪 Connect to J15 pin 39

Chamber heater Output duex.pwm1 🡪 Connect to J15 pin 11

Support Heater Thermocouple duex.e3temp with 1K ohm resistor between your thermocouple amplifier output and the thermistor input, and 2K ohm resistor from thermistor input to ground 🡪 Connected to J15 pin 37

Support Heater Output duex.pwm3 🡪 Connect to J15 pin 19

Model Heater Thermocouple duex.e4temp with 1K ohm resistor between your thermocouple amplifier output and the thermistor input, and 2K ohm resistor from thermistor input to ground 🡪 Connect to J15 pin 35

Model Heater Output duex.pwm2 🡪 Connect to J15 pin 18

**Enable Switches**

Heater and Extruder Motor Power Enable duex.pwm5 🡪 Connect to J15 pin 16

Extruder Motor Enable duex.pwm4 🡪 Connect to J13 pin 45

Door Lock Enable duex.gp1 🡪 Connect to J15 pin 13

**Alarms**

Power Supply Switch Status duex.e2stop 🡪 Connect to J15 pin 23

Chamber alarm duex.e4stop 🡪 Connect to J15 pin 33

Head alarm duex.e5stop 🡪 Connect to J15 pin 32

Head Thermostat alarm (Chamber temp >100C) duex.e6stop 🡪 Connect to J15 pin 22

**Print Head Position Switches**

Model Toggle Switch e1stop 🡪 Connect to J14 pin 8

Support Toggle Switch e0stop 🡪 Connect to J14 pin 10

**Duet 2 Wifi Power**

Use the other +24V and GND output (Second one not connected to the GeckoDrive) to power the Duet 2 Wifi and DueX5 expansion board following Duet3D’s recommendations with a short ground between both boards and the same 24V source. I used connector wires from an old PSU power supply.

5V should be taken from the Uprint 5V power supply and run to the Duex5 board to ensure enough current is available for the heater and enable signal pins.

Change the endstop voltages to 5V using the selectors on the Duet boards.