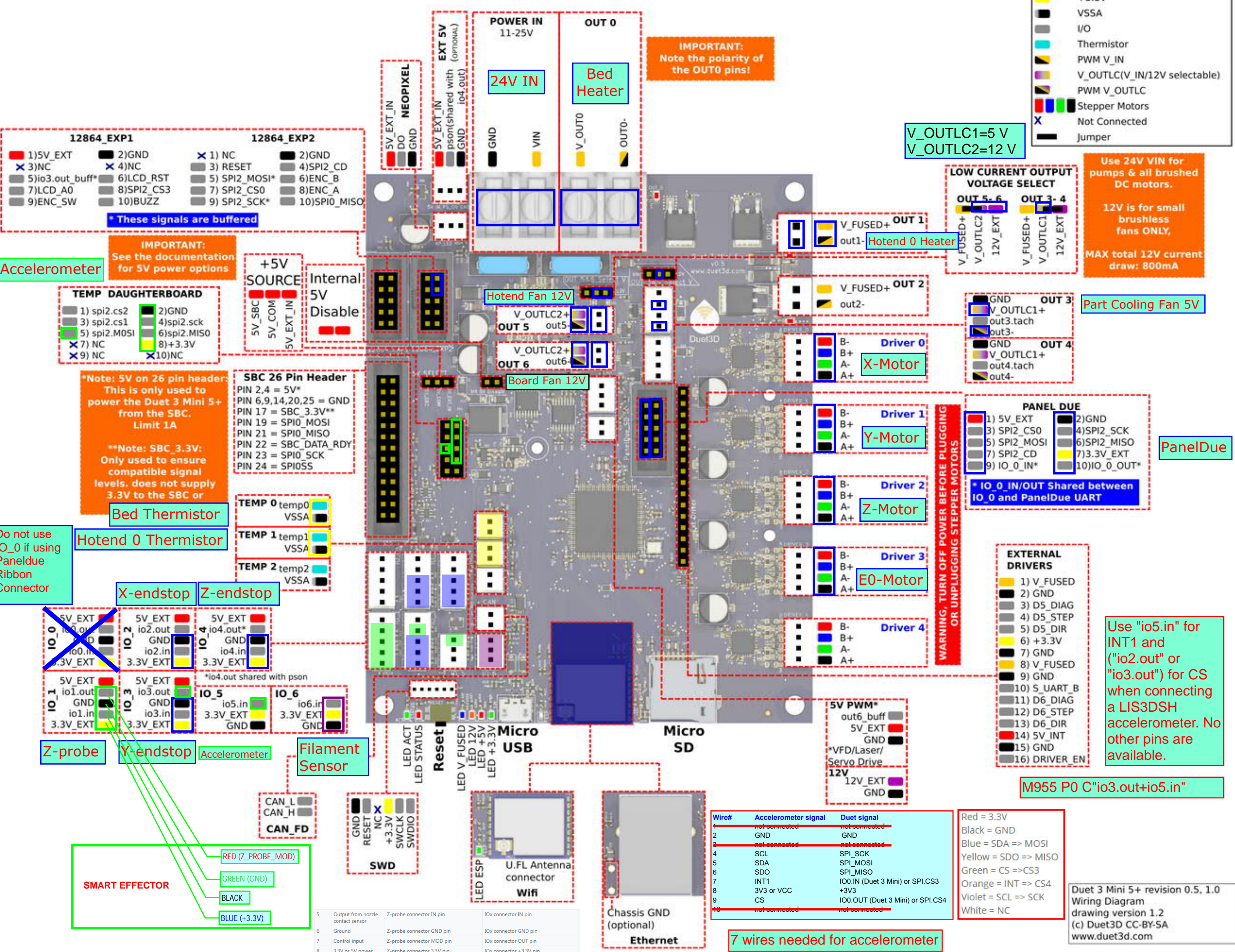


Duet 3 Mini 5+ Wiring Diagram

v0.5, v1.0

KEY

- GND
- V_IN
- +12V
- +5V
- +3.3V
- VSSA
- I/O
- Thermistor
- PWM V_IN
- V_OUTLC(V_IN/12V selectable)
- PWM V_OUTLC
- Stepper Motors
- Not Connected
- Jumper



12864_EXP1

- 1) 5V_EXT
- 3) NC
- 5) io3.out_buff*
- 7) LCD_A0
- 9) ENC_SW

12864_EXP2

- 2) GND
- 4) SPI2_CD
- 6) ENC_B
- 8) ENC_A
- 10) SPI0_MISO

* These signals are buffered

IMPORTANT: See the documentation for 5V power options

TEMP DAUGHTERBOARD

- 1) spi2.cs2
- 3) spi2.cs1
- 5) spi2.MOSI
- 7) NC
- 9) NC
- 2) GND
- 4) spi2.sck
- 6) spi2.MISO
- 8) +3.3V
- 10) NC

***Note: 5V on 26 pin header:** This is only used to power the Duet 3 Mini 5+ from the SBC. Limit 1A

****Note: SBC_3.3V:** Only used to ensure compatible signal levels. does not supply 3.3V to the SBC or

SBC 26 Pin Header

- PIN 2,4 = 5V*
- PIN 6,9,14,20,25 = GND
- PIN 17 = SBC_3.3V**
- PIN 19 = SPI0_MOSI
- PIN 21 = SPI0_MISO
- PIN 22 = SBC_DATA_RDY
- PIN 23 = SPI0_SCK
- PIN 24 = SPI0SS

Do not use IO_0 if using PanelDue Ribbon Connector

IO Headers

- IO_0: 5V_EXT, io0.out, io0.in, 3.3V_EXT
- IO_1: 5V_EXT, io1.out, io1.in, 3.3V_EXT
- IO_2: 5V_EXT, io2.out, io2.in, 3.3V_EXT
- IO_3: 5V_EXT, io3.out, io3.in, 3.3V_EXT
- IO_4: 5V_EXT, io4.out*, io4.in, 3.3V_EXT
- IO_5: 5V_EXT, io5.in, 3.3V_EXT, GND
- IO_6: 5V_EXT, io6.in, 3.3V_EXT, GND

*io4.out shared with pson

SMART EFFECTOR

- RED (Z_PROBE_MOD)
- GREEN (GND)
- BLACK
- BLUE (+3.3V)

CAN Headers

- CAN_L
- CAN_H
- CAN_FD

SWD Headers

- GND
- RESET
- NC
- +3.3V
- SWCLK
- SWDIO

LED Headers

- LED V_FUSED
- LED 12V
- LED +5V
- LED +3.3V

U.FL Antenna connector Wifi

Chassis GND (optional) Ethernet

Wire#	Accelerometer signal	Duet signal
1	not connected	not connected
2	GND	GND
3	not connected	not connected
4	SCL	SPI_SCK
5	SDA	SPI_MOSI
6	SDO	SPI_MISO
7	INT1	IO0.IN (Duet 3 Mini) or SPI_CS3
8	3V3 or VCC	+3V3
9	CS	IO0.OUT (Duet 3 Mini) or SPI_CS4
10	not connected	not connected

7 wires needed for accelerometer

Color Key

- Red = 3.3V
- Black = GND
- Blue = SDA => MOSI
- Yellow = SDO => MISO
- Green = CS => CS3
- Orange = INT => CS4
- Violet = SCL => SCK
- White = NC

WARNING, TURN OFF POWER BEFORE PLUGGING OR UNPLUGGING STEPPER MOTORS

LOW CURRENT OUTPUT VOLTAGE SELECT

- OUT 5-6: V_FUSED+, V_OUTLC2, 12V_EXT
- OUT 3-4: V_FUSED+, V_OUTLC1, 12V_EXT

Use 24V VIN for pumps & all brushed DC motors.

12V is for small brushless fans ONLY.

MAX total 12V current draw: 800mA

PANEL DUE

- 1) 5V_EXT
- 3) SPI2_CS0
- 5) SPI2_MOSI
- 7) SPI2_CD
- 9) IO_0_IN*
- 2) GND
- 4) SPI2_SCK
- 6) SPI2_MISO
- 8) 3.3V_EXT
- 10) IO_0_OUT*

* IO_0_IN/OUT Shared between IO_0 and PanelDue UART

PanelDue

EXTERNAL DRIVERS

- 1) V_FUSED
- 2) GND
- 3) D5_DIAG
- 4) D5_STEP
- 5) D5_DIR
- 6) +3.3V
- 7) GND
- 8) V_FUSED
- 9) GND
- 10) S_UART_B
- 11) D6_DIAG
- 12) D6_STEP
- 13) D6_DIR
- 14) 5V_INT
- 15) GND
- 16) DRIVER_EN

Use "io5.in" for INT1 and ("io2.out" or "io3.out") for CS when connecting a LIS3DSH accelerometer. No other pins are available.

M955 P0 C "io3.out+io5.in"

5	Output from nozzle contact sensor	Z-probe connector IN pin	IOx connector IN pin
6	Ground	Z-probe connector GND pin	IOx connector GND pin
7	Control input	Z-probe connector MOD pin	IOx connector OUT pin
8	3.3V or 5V power	Z-probe connector 3.3V pin	IOx connector +3.3V pin