

Main Harness Name	WIRE Name	Component A	Connector A	Component B	Connector B	Length (CM)	Wire Gauge	Color Marker	Motion?	Connector Name
Power Inlet										
	Jumper - Line	Power Inlet	Female Spade 6mm	Power Switch	Female Spade 4mm	5	18	BRN	N	
	Jumper - Neutral	Power Inlet	Female Spade 6mm	Power Switch	Female Spade 4mm	5	18	BLU	N	
	Line Wire	Power Switch	Female Spade 4mm	24V Power Supply	Fork 4.3mm	20	18	BRN	N	
	Neutral Wire	Power Switch	Female Spade 4mm	24V Power Supply	Fork 4.3mm	20	18	BLU	N	
	Ground Wire	Power Inlet	Female Spade 6mm	24V Power Supply	Fork 4.3mm	20	18	GN/YEL	N	
Solid State Relay										
	Line Wire (IN)	24V Power Supply	Fork 4.3mm	SSR	Fork 4.3mm	57	18	BRN	N	
	LINE Wire (LOAD)	SSR	Fork 4.3mm	Heated Bed WAGO	Bare Wire	86	18	BRN	Y	
	Trigger +	Duet 3 6HC	Molex LG Pin 2 of 2	SSR IN +	Fork 4.3mm	42	24	RED	N	OUT_3
	Trigger -	Duet 3 6HC	Molex LG Pin 1 of 2	SSR IN -	Fork 4.3mm	42	24	BLK	N	OUT_3
Heated Bed WAGOs										
	Neutral 120V Wire	24V Power Supply	Fork 4.3mm	Heated Bed WAGO	Bare Wire	133	18	BLU	Y	
	Bed Thermistor +	Duet 3 6HC	Molex KK Pin 2 of 2	Heated Bed WAGO	Bare Wire	118	24	RED	Y	TEMP_3
	Bed Thermistor -	Duet 3 6HC	Molex KK Pin 1 of 2	Heated Bed WAGO	Bare Wire	118	24	BLK	Y	TEMP_3
SexBolt Offset Switch										
	Switch S	Sexbolt Switch	JST-XH Pin 1 of 2	Duet 3 6HC	Molex KK Pin 2 of 5	141	24	GREEN	Y	IO_5_IN
	Switch -	Sexbolt Switch	JST-XH Pin 2 of 2	Duet 3 6HC	Molex KK Pin 3 of 5	141	24	BLK	Y	IO_5_IN
12V DC Converter										
	24V IN +	24V Power Supply	Fork 4.3mm	12V Converter	Fork 3.2mm	67	18	RED	N	
	24V IN -	24V Power Supply	Fork 4.3mm	12V Converter	Fork 3.2mm	67	18	BLK	N	
5V DC Converter										
	24V IN +	24V Power Supply	Fork 4.3mm	12V Converter	Fork 3.2mm	74	18	RED	N	
	24V IN -	24V Power Supply	Fork 4.3mm	12V Converter	Fork 3.2mm	74	18	BLK	N	
	5V Out +	5V Converter	Fork 3.2mm	Duet 3 6HC	Molex KK PIN 3 of 3	60	20	RED	N	5V_EXT
	5V OUT -	5V Converter	Fork 3.2mm	Duet 3 6HC	Molex KK Pin 1 of 3	60	20	BLK	N	5V_EXT
Duet 3 6HC										
	24V IN +	24V Power Supply	Fork 4.3mm	Duet 3 6HC	Fork 4.3mm	91	18	RED	N	POWER_IN
	24V IN -	24V Power Supply	Fork 4.3mm	Duet 3 6HC	Fork 4.3mm	91	18	BLACK	N	POWER_IN
Duet 3 3HC										
	24V IN +	Duet 3 6HC	Fork 4.3mm	Duet 3 3HC	Fork 4.3mm	39	18	RED	N	POWER_IN
	24V IN -	Duet 3 6HC	Fork 4.3mm	Duet 3 3HC	Fork 4.3mm	39	18	BLACK	N	POWER_IN
Water Pump										
	Radiator Fan +	Duet 3 6HC	Molex KK Pin 2 of 2	6020 Fan	Microfit Connector Pin 1 of 4	50	24	RED	N	OUT_9
	Radiator Fan -	Duet 3 6HC	Molex KK Pin 1 of 2	6020 Fan	Microfit Connector Pin 2 of 4	50	24	BLK	N	OUT_9
	12V OUT +	12V Converter	Fork 3.2mm	Water Pump +	Microfit Connector Pin 3 of 4	86	20	RED	N	
	12V OUT -	12V Converter	Fork 3.2mm	Water Pump -	Microfit Connector Pin 4 of 4	86	20	BLK	N	

Display

Display Data 1	Duet 3 6HC	Molex KK Pin 2 of 5	PanelDue	Molex KK Pin 4 of 4	62	24 GREEN	N	IO_0
Display Data 2	Duet 3 6HC	Molex KK Pin 3 of 5	PanelDue	Molex KK Pin 2 of 4	62	24 BLACK	N	IO_0
Display Data 3	Duet 3 6HC	Molex KK Pin 4 of 5	PanelDue	Molex KK Pin 3 of 4	62	24 BLUE	N	IO_0
Display Data 4	Duet 3 6HC	Molex KK Pin 5 of 5	PanelDue	Molex KK Pin 1 of 4	62	24 RED	N	IO_0_5V_EXT

Tool Docks

Tool 0 Heater +	Duet 3 6HC	Molex LG Pin 2 of 2	Tool Dock 0	Microfit Receptacle Pin 4 of 4	136	20 RED	N	OUT_1
Tool 0 Heater -	Duet 3 6HC	Molex LG Pin 1 of 2	Tool Dock 0	Microfit Receptacle Pin 1 of 4	136	20 BLACK	N	OUT_1
Tool 0 Thermistor +	Duet 3 6HC	Molex KK Pin 1 of 2	Tool Dock 0	Microfit Receptacle Pin 2 of 4	136	24 RED	N	TEMP_0
Tool 0 Thermistor -	Duet 3 6HC	Molex KK Pin 2 of 2	Tool Dock 0	Microfit Receptacle Pin 3 of 4	136	24 BLACK	N	TEMP_0
Tool 1 Heater +	Duet 3 6HC	Molex LG Pin 2 of 2	Tool Dock 1	Microfit Receptacle Pin 4 of 4	141	20 RED	N	OUT_2
Tool 1 Heater -	Duet 3 6HC	Molex LG Pin 1 of 2	Tool Dock 1	Microfit Receptacle Pin 1 of 4	141	20 BLACK	N	OUT_2
Tool 1 Thermistor +	Duet 3 6HC	Molex KK Pin 1 of 2	Tool Dock 1	Microfit Receptacle Pin 2 of 4	141	24 RED	N	TEMP_1
Tool 1 Thermistor -	Duet 3 6HC	Molex KK Pin 2 of 2	Tool Dock 1	Microfit Receptacle Pin 3 of 4	141	24 BLACK	N	TEMP_1
Tool 2 Heater +	Duet 3 3HC	Molex LG Pin 2 of 2	Tool Dock 2	Microfit Receptacle Pin 4 of 4	131	20 RED	N	OUT_0
Tool 2 Heater -	Duet 3 3HC	Molex LG Pin 1 of 2	Tool Dock 2	Microfit Receptacle Pin 1 of 4	131	20 BLACK	N	OUT_0
Tool 2 Thermistor +	Duet 3 3HC	Molex KK Pin 1 of 2	Tool Dock 2	Microfit Receptacle Pin 2 of 4	131	24 RED	N	TEMP_0
Tool 2 Thermistor -	Duet 3 3HC	Molex KK Pin 2 of 2	Tool Dock 2	Microfit Receptacle Pin 3 of 4	131	24 BLACK	N	TEMP_0
Tool 3 Heater +	Duet 3 3HC	Molex LG Pin 2 of 2	Tool Dock 3	Microfit Receptacle Pin 4 of 4	136	20 RED	N	OUT_1
Tool 3 Heater -	Duet 3 3HC	Molex LG Pin 1 of 2	Tool Dock 3	Microfit Receptacle Pin 1 of 4	136	20 BLACK	N	OUT_1
Tool 3 Thermistor +	Duet 3 3HC	Molex KK Pin 1 of 2	Tool Dock 3	Microfit Receptacle Pin 2 of 4	136	24 RED	N	TEMP_1
Tool 3 Thermistor -	Duet 3 3HC	Molex KK Pin 2 of 2	Tool Dock 3	Microfit Receptacle Pin 3 of 4	136	24 BLACK	N	TEMP_1
Tool 4 Heater +	Duet 3 3HC	Molex LG Pin 2 of 2	Tool Dock 4	Microfit Receptacle Pin 4 of 4	141	20 RED	N	OUT_2
Tool 4 Heater -	Duet 3 3HC	Molex LG Pin 1 of 2	Tool Dock 4	Microfit Receptacle Pin 1 of 4	141	20 BLACK	N	OUT_2
Tool 4 Thermistor +	Duet 3 3HC	Molex KK Pin 1 of 2	Tool Dock 4	Microfit Receptacle Pin 2 of 4	141	24 RED	N	TEMP_2
Tool 4 Thermistor -	Duet 3 3HC	Molex KK Pin 2 of 2	Tool Dock 4	Microfit Receptacle Pin 3 of 4	141	24 BLACK	N	TEMP_2

Enclosure Lighting

LED + (Stick1)	Duet 3 6HC	Molex KK Pin 1 of 2	Light Stick 1	JST XH Pin 1 of 2	144	20 RED	N	OUT_8
LED - (Stick1)	Duet 3 6HC	Molex KK Pin 2 of 2	Light Stick 1	JST XH Pin 2 of 2	144	20 BLACK	N	OUT_8
LED + (Stick2)	Light Stick 1	JST XH Pin 2 of 2	Light Stick 2	JST XH Pin 1 of 2	61	20 RED	N	
LED - (Stick2)	Light Stick 1	JST XH Pin 1 of 2	Light Stick 2	JST XH Pin 2 of 2	61	20 BLACK	N	

FDM Tool Hoops

Tool N Heater +	Tool Dock N	Microfit Receptacle Pin 4 of 4	Tool Heater +	Microfit Receptacle Pin 1 of 2	70	20 RED	Y
Tool N Heater -	Tool Dock N	Microfit Receptacle Pin 1 of 4	Tool Heater -	Microfit Receptacle Pin 2 of 2	70	20 BLACK	Y
Tool N Thermistor +	Tool Dock N	Microfit Receptacle Pin 2 of 4	Tool Thermistor +	Microfit Receptacle Pin 1 of 2	72	24 RED	Y
Tool N Thermistor -	Tool Dock N	Microfit Receptacle Pin 3 of 4	Tool Thermistor -	Microfit Receptacle Pin 2 of 2	72	24 BLACK	Y

TOOL HEAD

E Motor Pair 1	Duet 3 6HC	Molex LG Pin 1 of 4	Extruder Motor	JST PH Pin 1 of 6	256	24 BLACK	Y	DRIVER_3
E Motor Pair 1	Duet 3 6HC	Molex LG Pin 2 of 4	Extruder Motor	JST PH Pin 6 of 6	256	24 BLUE	Y	DRIVER_3
E Motor Pair 2	Duet 3 6HC	Molex LG Pin 3 of 4	Extruder Motor	JST PH Pin 4 of 6	256	24 GREEN	Y	DRIVER_3
E Motor Pair 2	Duet 3 6HC	Molex LG Pin 4 of 4	Extruder Motor	JST PH Pin 3 of 6	256	24 RED	Y	DRIVER_3
T Motor Pair 1	Duet 3 6HC	Molex LG Pin 1 of 4	Tool Lock Motor	Microfit Connector Pin 1 of 4	256	24 RED	Y	DRIVER_4
T Motor Pair 1	Duet 3 6HC	Molex LG Pin 2 of 4	Tool Lock Motor	Microfit Connector Pin 2 of 4	256	24 BLUE	Y	DRIVER_4
T Motor Pair 2	Duet 3 6HC	Molex LG Pin 3 of 4	Tool Lock Motor	Microfit Connector Pin 3 of 4	256	24 GREEN	Y	DRIVER_4
T Motor Pair 2	Duet 3 6HC	Molex LG Pin 4 of 4	Tool Lock Motor	Microfit Connector Pin 4 of 4	256	24 BLACK	Y	DRIVER_4
X Endstop +	Duet 3 6HC	Molex KK Pin 5 of 5	X Endstop	JST XH Pin 1 of 3	256	24 RED	Y	IO_1
X Endstop S	Duet 3 6HC	Molex KK Pin 4 of 5	X Endstop	JST XH Pin 2 of 3	256	24 GREEN	Y	IO_1
X Endstop -	Duet 3 6HC	Molex KK Pin 3 of 5	X Endstop	JST XH Pin 3 of 3	256	24 BLACK	Y	IO_1
Z Endstop S	Duet 3 6HC	Molex KK Pin 2 of 5	Z Endstop	Microfit Connector Pin 1 of 2	256	24 GREEN	Y	IO_3
Z Endstop -	Duet 3 6HC	Molex KK Pin 3 of 5	Z Endstop	Microfit Connector Pin 2 of 2	256	24 BLACK	Y	IO_3
TL Endstop +	Duet 3 6HC	Molex KK Pin 5 of 5	Tool Lock Endstop	JST XH Pin 1 of 3	256	24 RED	Y	IO_4
TL Endstop S	Duet 3 6HC	Molex KK Pin 4 of 5	Tool Lock Endstop	JST XH Pin 2 of 3	256	24 GREEN	Y	IO_4
TL Endstop -	Duet 3 6HC	Molex KK Pin 3 of 5	Tool Lock Endstop	JST XH Pin 3 of 3	256	24 BLACK	Y	IO_4
Part Fan +	Duet 3 6HC	Molex KK Pin 2 of 2	Part cooling Fan	Microfit Connector Pin 1 of 2	256	24 RED	Y	OUT_7
Part Fan -	Duet 3 6HC	Molex KK Pin 1 of 2	Part cooling Fan	Microfit Connector Pin 2 of 2	256	24 BLACK	Y	OUT_7

Y Endstop

Y Endstop +	Duet 3 6HC	Molex KK Pin 5 of 5	Y Endstop	JST XH Pin 1 of 3	83	24 RED	N	IO_2
Y Endstop S	Duet 3 6HC	Molex KK Pin 4 of 5	Y Endstop	JST XH Pin 2 of 3	83	24 GREEN	N	IO_2
Y Endstop -	Duet 3 6HC	Molex KK Pin 3 of 5	Y Endstop	JST XH Pin 3 of 3	83	24 BLACK	N	IO_2

B Motor

B Motor Pair 1	Duet 3 6HC	Molex LG Pin 1 of 4	B Motor	JST PH Pin 1 of 6	61	24 RED	N	DRIVER_0
B Motor Pair 1	Duet 3 6HC	Molex LG Pin 2 of 4	B Motor	JST PH Pin 3 of 6	61	24 BLUE	N	DRIVER_0
B Motor Pair 2	Duet 3 6HC	Molex LG Pin 3 of 4	B Motor	JST PH Pin 4 of 6	61	24 GREEN	N	DRIVER_0
B Motor Pair 2	Duet 3 6HC	Molex LG Pin 4 of 4	B Motor	JST PH Pin 6 of 6	61	24 BLACK	N	DRIVER_0

A Motor

A Motor Pair 1	Duet 3 6HC	Molex LG Pin 1 of 4	A Motor	JST PH Pin 1 of 6	173	24 RED	N	DRIVER_1
A Motor Pair 1	Duet 3 6HC	Molex LG Pin 2 of 4	A Motor	JST PH Pin 3 of 6	173	24 BLUE	N	DRIVER_1
A Motor Pair 2	Duet 3 6HC	Molex LG Pin 3 of 4	A Motor	JST PH Pin 4 of 6	173	24 GREEN	N	DRIVER_1
A Motor Pair 2	Duet 3 6HC	Molex LG Pin 4 of 4	A Motor	JST PH Pin 6 of 6	173	24 BLACK	N	DRIVER_1

Z Motor

Z Motor Pair 1	Duet 3 6HC	Molex LG Pin 1 of 4	Z Motor	JST PH Pin 1 of 6	17	24 RED	N	DRIVER_2
Z Motor Pair 1	Duet 3 6HC	Molex LG Pin 2 of 4	Z Motor	JST PH Pin 3 of 6	17	24 BLUE	N	DRIVER_2
Z Motor Pair 2	Duet 3 6HC	Molex LG Pin 3 of 4	Z Motor	JST PH Pin 4 of 6	17	24 GREEN	N	DRIVER_2
Z Motor Pair 2	Duet 3 6HC	Molex LG Pin 4 of 4	Z Motor	JST PH Pin 6 of 6	17	24 BLACK	N	DRIVER_2

Raspberry Pi								
	RPI 5V+	5V DC Converter	Fork 3.2mm	RPI	USB-C	40	20 RED	N
	RPI 5V-	5V DC Converter	Fork 3.2mm	RPI	USB-C	40	20 BLK	N
AUX Cooling Fan								
	AUX Fan +	Duet 3 6HC	Molex KK Pin 2 of 4	AUX fan	Microfit Connector Pin 1 of 2	85	24 RED	N OUT_4
	AUX Fan -	Duet 3 6HC	Molex KK Pin 4 of 4	AUX fan	Microfit Connector Pin 2 of 2	85	24 BLK	N OUT_4

TOTAL WIRE (FEP)	TOTAL CM	TOTAL M	Total M +20%
Red 24ga	2728	27.28	32.736
Black 24ga	3125	31.25	37.5
Green 24ga	1817	18.17	21.804
Blue 24ga	825	8.25	9.9
Red 20ga	1146	11.46	13.752
Black 20ga	1146	11.46	13.752
Red 18ga	271	2.71	3.252
Brown 18ga	168	1.68	2.016
Black 18ga	197	1.97	2.364
Blue 18ga	158	1.58	1.896
Yel/Grn 18ga	100	1	1.2