MCU Connectors	Cable ID	Len (m)		Segments		

Toolhead Power — Cable ID 1, Len 1.5

Component	HE0	FH0	FH1	ABL	
Pin Number	1	2	3	4	5
Pin Name	VIN	VIN	VIN	VIN	SRV
Pin Name	GND	GND	GND	GND	Unused
Pin Number	6	7	8	9	10

Toolhead Signal — Cable ID 2, Len 1.5

Component	TH0	ABL	ME	
Pin Number	1	2	3	4
Pin Name	AS	AS	E1_A	E1_B
Pin Name	AS_GND	AS_GND	E2_A	E2_B
Pin Number	5	6	7	8

Toolhead SPI — Cable ID -, Len 1.5

Component	COM	SPI	
Pin Number	1	2	3
Pin Name	3.3V	SCLK	MOSI
Pin Name	GND	CS	MISO
Pin Number	4	5	6

Gantry Motion — Cable ID 3, Len 1

Component	SX	MX	
Pin Number	1	2	3
Pin Name	AS	E1_A	E1_B
Pin Name	AS_GND	E2_A	E2_B
Pin Number	4	5	6

Rear Motion — Cable ID 4, Len 1

Component	SY	SZ	MY	
Pin Number	1	2	3	4
Pin Name	AS	AS	E1_A	E1_B
Pin Name	AS_GND	AS_GND	E2_A	E2_B
Pin Number	5	6	7	8
Pin Number				

Bottom Motion — Cable ID 5, Len 0.5, -

MZ	
3	4
E1_A	E1_B
E2_A	E2_B
7	8

Bed Thermistor — Cable ID 6, -

TB
1
AS
2
AS_GND

Connector Pin Mapping

Toolhead	Pin Name	In ID	In Pin	Out Pin
HE0	VIN	1	1	1
	GND	1	6	2
FH0	VIN	1	2	1
	GND	1	7	2
FH1	VIN	1	3	1
	GND	1	8	2
TH0	AS	2	1	1
	AS_GND	2	5	2
ABL (POW)	VIN	1	4	1
	GND	1	9	2
	SRV	1	5	3
ABL (SIG)	AS	2	2	4
	AS_GND	2	6	5
ME	E1_A	2	3	1
	E1_B	2	7	2
	E2_A	2	4	3
	E2_B	2	8	4

	Pin Name	In ID	In Pin	Out Pin
SPI	3.3V	SPI	1	1
	SCLK	SPI	2	2
	MOSI	SPI	3	3
	GND	SPI	4	4
	CS	SPI	5	5
	MISO	SPI	6	6

Motion	Pin Name	In ID	In Pin	Out Pin
SX	AS	3	1	1
	AS_GND	3	4	2
MX	E1_A	3	2	1
	E1_B	3	3	2
	E2_A	3	5	3
	E2_B	3	6	4

	Pin Name	In ID	In Pin	Out Pin
SY	AS	4	1	1
	AS_GND	4	5	2
SZ	AS	4	3	1
	AS_GND	4	6	2
MY	E1_A	4	3	1
	E1_B	4	4	2
	E2_A	4	7	3
	E2_B	4	8	4

	Pin Name	In ID	In Pin	Out Pin
MZ	E1_A	5	1	1
	E1_B	5	2	2
	E2_A	5	3	3
	E2_B	5	4	4

Endpoints

Toolhead

HE0

1	
VIN	
GND	2

ME

1	2
E1_A	E1_B
E2_A	E2_B
3	4

FH0

1	2
VIN	GND

FH1

1	2
VIN	GND

ABL

1	2	3	4	5
VLO	GND	SRV	AS	AS_GND

SPI

1	2	3
3.3V	SCLK	MOSI
GND	CS	MISO
4	5	6

TH0

1	2
AS	AS_GND

SX

1	2
AS	AS_GND

MX

1	2
E1_A	E1_B
E2_A	E2_B
3	4

SY

1	2
AS	AS_GND

MY

1	2
E1_A	E1_B
E2_A	E2_B
3	4

SZ

1	2
AS	AS_GND

MZ

1	2
E1_A	E1_B
E2_A	E2_B
3	4