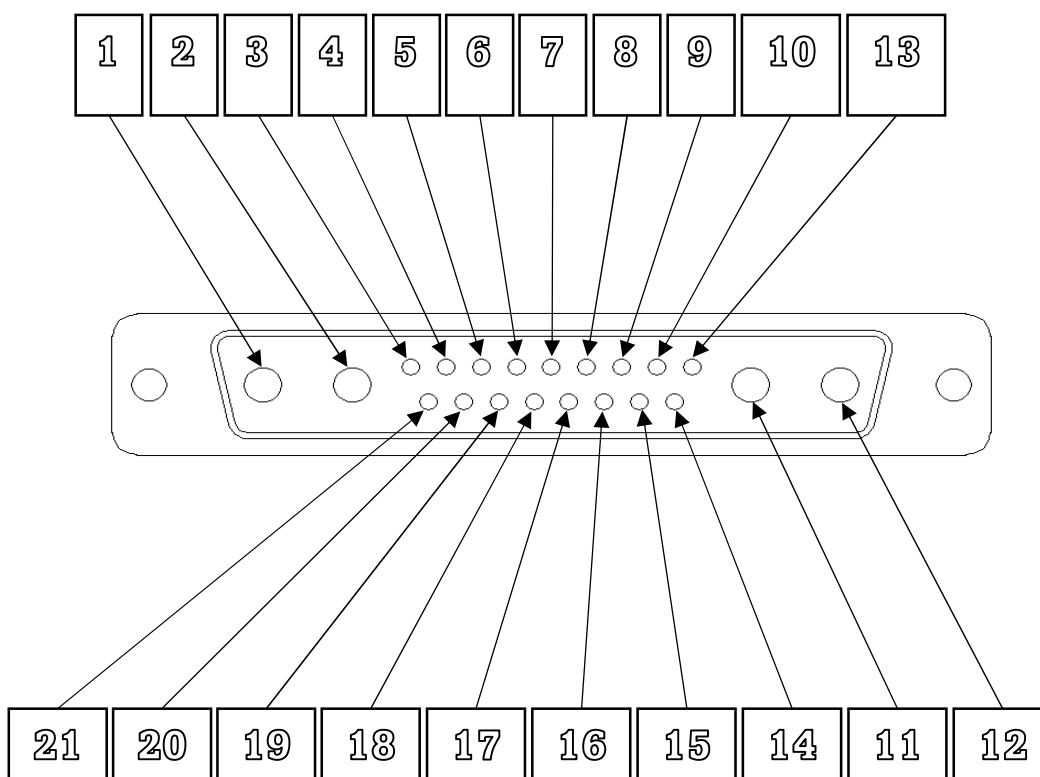# Rhino: Pin Assignements

Umbilical Connector

Constant Connections:

The following devices are part of the canstant connection from the control panel to the x-carriage.

X-Axis Endstop

Umbilical led strip

Chamber Temperature Sensor

Constant connections are routed through the Back Bone.

Rhino: Pin Assignements

Tools

3d Printing Modules		Laser Module		Spindle Module		Drag Knife Module	
Umbilical Pin	Device	Umbilical Pin	Device	Umbilical Pin	Device	Umbilical Pin	Device
1	Hotend	1		1		1	
2	Hotend	2		2		2	
3	Thermistor	3	Thermistor	3	Thermistor	3	Thermistor
4	Thermistor	4	Thermistor	4	Thermistor	4	Thermistor
5	Hotend Fan	5		5		5	
6	Hotend Fan	6		6		6	
7	Stepper	7		7		7	
8	Stepper	8		8		8	
9	Stepper	9		9		9	
10	Stepper	10		10		10	
11		11		11	24v Power Relay	11	
12		12		12	24v Power Relay	12	
13	Probe	13	Probe	13	Probe	13	Probe
14	Probe	14	Probe	14	Probe	14	Probe
15	Probe	15	Probe	15	Probe	15	Probe
16		16	Laser PWM	16		16	
17		17	Laser PWM	17		17	
18		18		18	Spindle PWM	18	
19		19		19	Spindle PWM	19	
20		20	12v Power Relay	20		20	
21		21	12v Power	21		21	