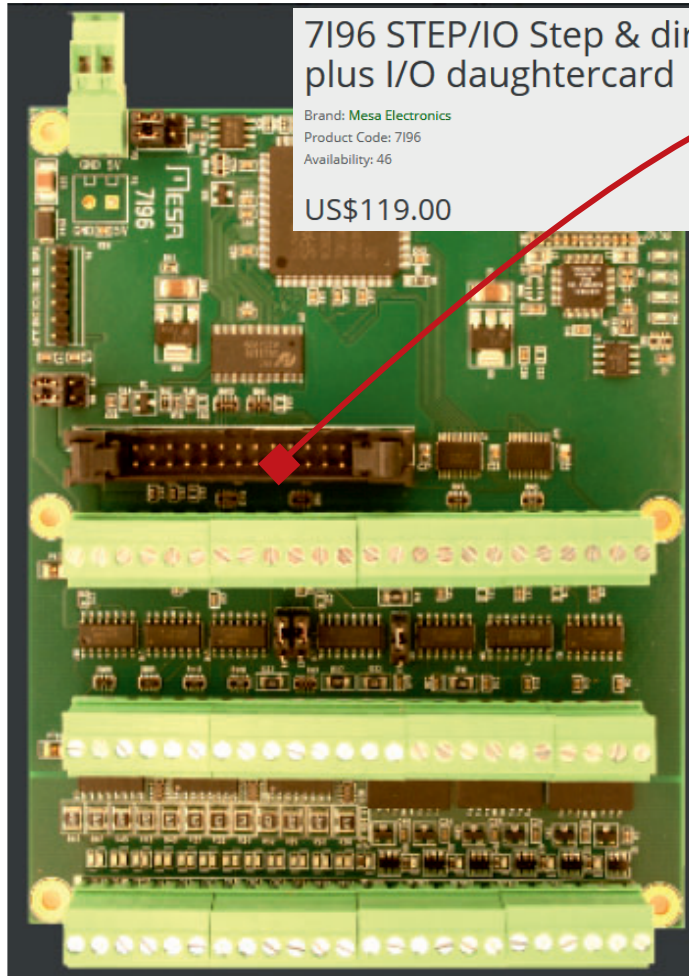


Basic Setup of Proxxon SD-300, Lathe CNC-Conversion (LinuxCNC)

Lathe Actuators & Feedback Sensor													
Spindle Motor Control													
M Spindle Motor	Spindle Motor Controller	<table border="1"> <tr><td>gpio(1i)</td><td>EN</td></tr> <tr><td>gpio(1i)</td><td>CW</td></tr> <tr><td>gpio(1i)</td><td>CCW</td></tr> <tr><td>pwm(1i)</td><td>speed</td></tr> <tr><td>RS422(1i)</td><td>speed</td></tr> </table>	gpio(1i)	EN	gpio(1i)	CW	gpio(1i)	CCW	pwm(1i)	speed	RS422(1i)	speed	
gpio(1i)	EN												
gpio(1i)	CW												
gpio(1i)	CCW												
pwm(1i)	speed												
RS422(1i)	speed												
S1 Rotary Spindle Encoder (Feedback) (GPIO)	Pulses	<table border="1"> <tr><td>422(1o)</td><td>A</td></tr> <tr><td>422(1o)</td><td>B</td></tr> <tr><td>422(1o)</td><td>Z</td></tr> </table>	422(1o)	A	422(1o)	B	422(1o)	Z					
422(1o)	A												
422(1o)	B												
422(1o)	Z												
Lathe Carriage, X-Axis Control													
M2 NEMA23 Stepper Motor	Stepper Driver (JMC, 2DM860H)	<table border="1"> <tr><td>gpio(1i)</td><td>EN</td></tr> <tr><td>gpio(1i)</td><td>dir</td></tr> <tr><td>gpio(1i)</td><td>step</td></tr> <tr><td>gpio(1o)</td><td>Alert!</td></tr> </table>	gpio(1i)	EN	gpio(1i)	dir	gpio(1i)	step	gpio(1o)	Alert!			
gpio(1i)	EN												
gpio(1i)	dir												
gpio(1i)	step												
gpio(1o)	Alert!												
S4 Linear Optical Encoder (Feedback)	X-Axis	<table border="1"> <tr><td>422(1o)</td><td>A</td></tr> <tr><td>422(1o)</td><td>B</td></tr> <tr><td>422(1o)</td><td>Z</td></tr> </table>	422(1o)	A	422(1o)	B	422(1o)	Z					
422(1o)	A												
422(1o)	B												
422(1o)	Z												
S2b X-Axis Limit (max) Sensor	X-Axis	<table border="1"> <tr><td>gpio(1i)</td><td>in</td></tr> <tr><td>gpio(1o)</td><td>out</td></tr> </table>	gpio(1i)	in	gpio(1o)	out							
gpio(1i)	in												
gpio(1o)	out												
S7 X-Axis Hand-Wheel (Replacing the original hand wheel)	Pulses	<table border="1"> <tr><td>gpio(1o)</td><td>A</td></tr> <tr><td>gpio(1o)</td><td>B</td></tr> </table>	gpio(1o)	A	gpio(1o)	B							
gpio(1o)	A												
gpio(1o)	B												
Lathe Carriage, Z-Axis Control													
M1 NEMA23 Stepper Motor	Stepper Driver (JMC, 2DM860H)	<table border="1"> <tr><td>gpio(1i)</td><td>EN</td></tr> <tr><td>gpio(1i)</td><td>dir</td></tr> <tr><td>gpio(1i)</td><td>step</td></tr> <tr><td>gpio(1o)</td><td>Alert!</td></tr> </table>	gpio(1i)	EN	gpio(1i)	dir	gpio(1i)	step	gpio(1o)	Alert!			
gpio(1i)	EN												
gpio(1i)	dir												
gpio(1i)	step												
gpio(1o)	Alert!												
S3 Linear Magnetic Encoder (Feedback)	Z-Axis	<table border="1"> <tr><td>422(1o)</td><td>A</td></tr> <tr><td>422(1o)</td><td>B</td></tr> <tr><td>422(1o)</td><td>Z</td></tr> </table>	422(1o)	A	422(1o)	B	422(1o)	Z					
422(1o)	A												
422(1o)	B												
422(1o)	Z												
S2a Z-Axis Limit (max) Sensor	Z-Axis	<table border="1"> <tr><td>gpio(1i)</td><td>in</td></tr> <tr><td>gpio(1o)</td><td>out</td></tr> </table>	gpio(1i)	in	gpio(1o)	out							
gpio(1i)	in												
gpio(1o)	out												
S8 Z-Axis Hand-Wheel (Replacing the original hand wheel)	Pulses	<table border="1"> <tr><td>gpio(1o)</td><td>A</td></tr> <tr><td>gpio(1o)</td><td>B</td></tr> </table>	gpio(1o)	A	gpio(1o)	B							
gpio(1o)	A												
gpio(1o)	B												
User-Button (Operator):													
S9 Start	Start / Continue n.c Push-Button (After Tool-change)	<table border="1"> <tr><td>gpio(1i)</td><td>in</td></tr> <tr><td>gpio(1o)</td><td>out</td></tr> </table>	gpio(1i)	in	gpio(1o)	out							
gpio(1i)	in												
gpio(1o)	out												

Summary:
 4x AB(Z) Qua. Linear Encoders
 1x ABZ Qua. Spindle Encoder
 2x Stepper Motor (En, Dir, Step)
 2x Z-Reference & Limit-Sensor
 2x Limit Sensors
 1x Spindle Motor Controller



7196 STEP/IO Step & dir plus I/O daughtercard

Brand: Mesa Electronics
 Product Code: 7196
 Availability: 46

US\$119.00

7185S 4 Channel encoder, 8 differential output 1 channel Serial RS-422 interface

Brand: Mesa Electronics
 Product Code: 7185S
 Availability: 34

US\$69.00

