Technical specification UHU Servocontroller 3.00:

Controller

Platform:	Atmel Attiny2313
Operating frequency:	24 MHz
Operating principle:	enhanced PID
Loop parameters:	3 setups storable in EEPROM and secured by forward error correction
Speed:	up to 250.000 steps/s (4-fold encoder steps)

Communikation:

	interface:	RS232 34.800, 8 Bit, 1 Stop, No Parity
	logic:	command line, plain text

Inputs	PC:	step/dir
	encoder :	A/B 90°, 4-fold
	emergency stop:	Active Low

Outputs:
Ready (LED)
PWM (10 Bit, symmetric)
power enable
error (LED)

Enhanced functionality:
- Higher derivative feedback for stabilisation with minimal impact on positioning error
- adjustable tracking-error shutdown
- detection of false encoder inputs
- loop in of error conditions
- step multiplier for the use of high resolution encoders
- continous output of tracking error values for visualisation on external PC

PCB

Size:	1/1 euro format (160x100mm)
Technology:	single sided, no SMD, EMC optimized
Power stage:	- MOS-FET technology
	- adjustable maximum current

	option 1:	IRF540 max 10A/60V
	option 2:	IRFP260N max.30A/150V

Interfaces:	encoder:	TTL
	step/dir:	TTL through opto coupler
	RS232:	V.24 with built in level shifter and 1:1 connector SubD9
	error in/out:	5 V wired-or, active low

Power supply:	12 V regulated (logic)
	< 150V DC unregulated (power)