Original machine configuration: a separate, specialized power supply that regulates its voltage down below 100 mV and achieves above 2 Amps on output.

Arduino control configuration: the Arduino accepts gcode, interprets it, and sends out corresponding control signals to the RAMPS 1.4 motor controller. The motor controller then scales up these control signals into 12 V pulses on the hot wire.

Using Watt's law: $P = (I)(V)$

Original PSU: $(2\ \text{Amps})(0.100\ \text{V})$

Arduino: $\underbrace{(0.75\ \text{Amps})(12\ \text{V})}$

Unfortunately, the Amperes cannot be directly regulated, only the voltage. Maxing out the voltage at 12 V produces ~0.75 Amps since the hotwire has a constant resistance of 16 Ω.

Using Ohm's law: $I = \frac{V}{R}$

$$0.75\ \text{Amps} = \frac{12\ \text{V}}{16\ \Omega}$$