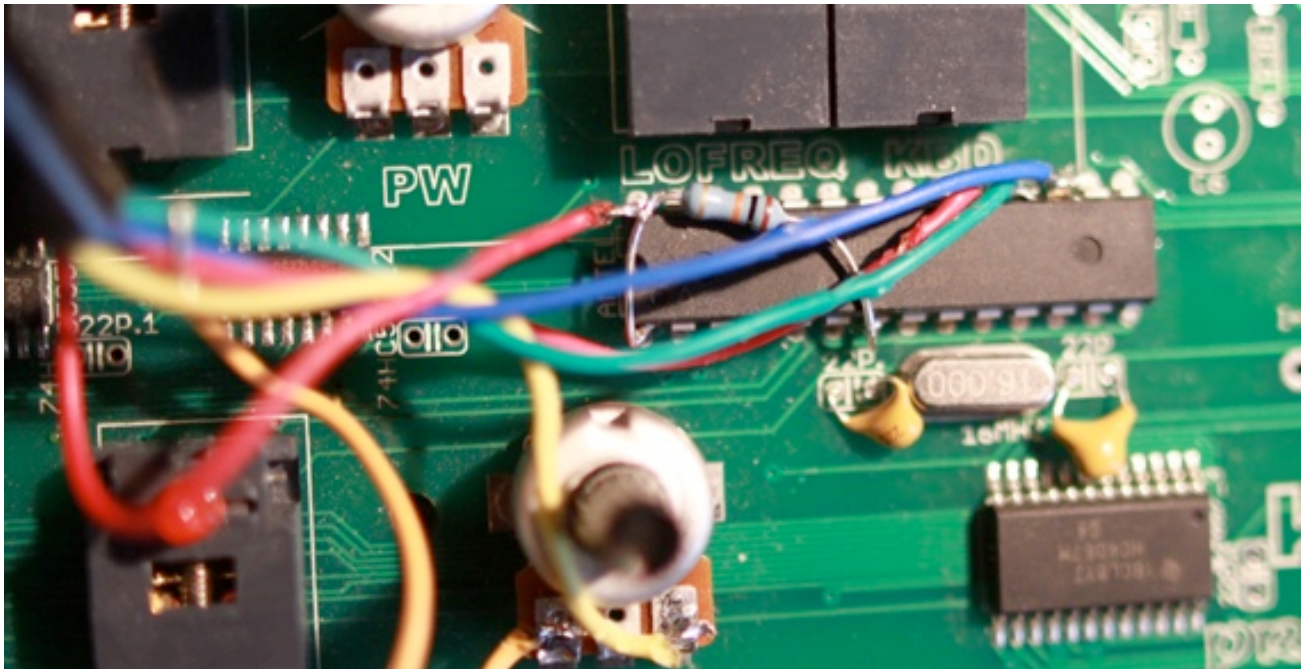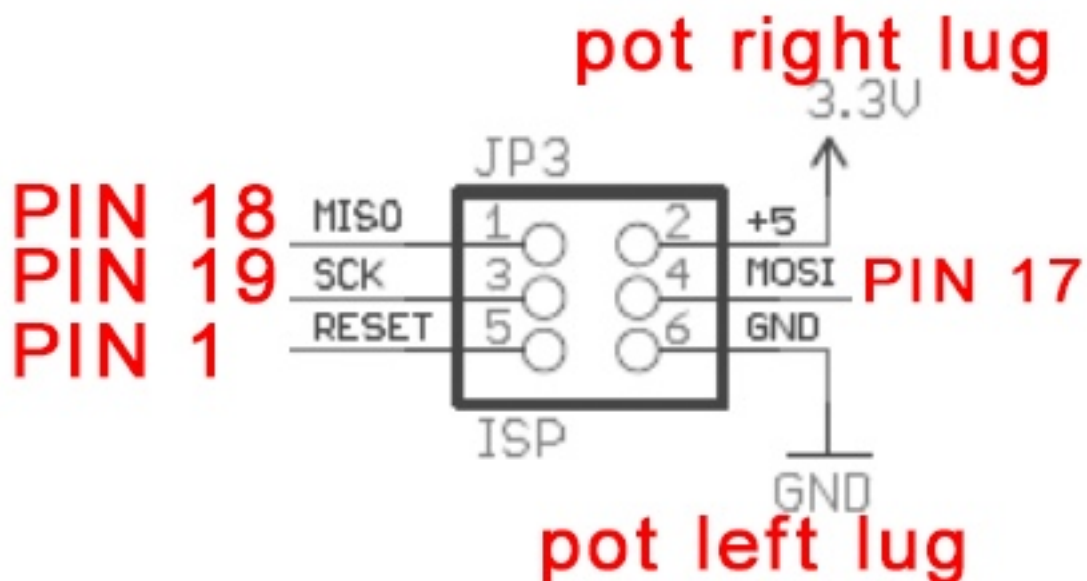# Professor In Circuit Programming

Unfortunately the micros for professor have been soldered to the PCB and there is no ISP header on the PCB so we have to solder the programming wires directly to the chip:

Following the below pinout, hook 6 wires between the AVRISP MKII port and Professor.
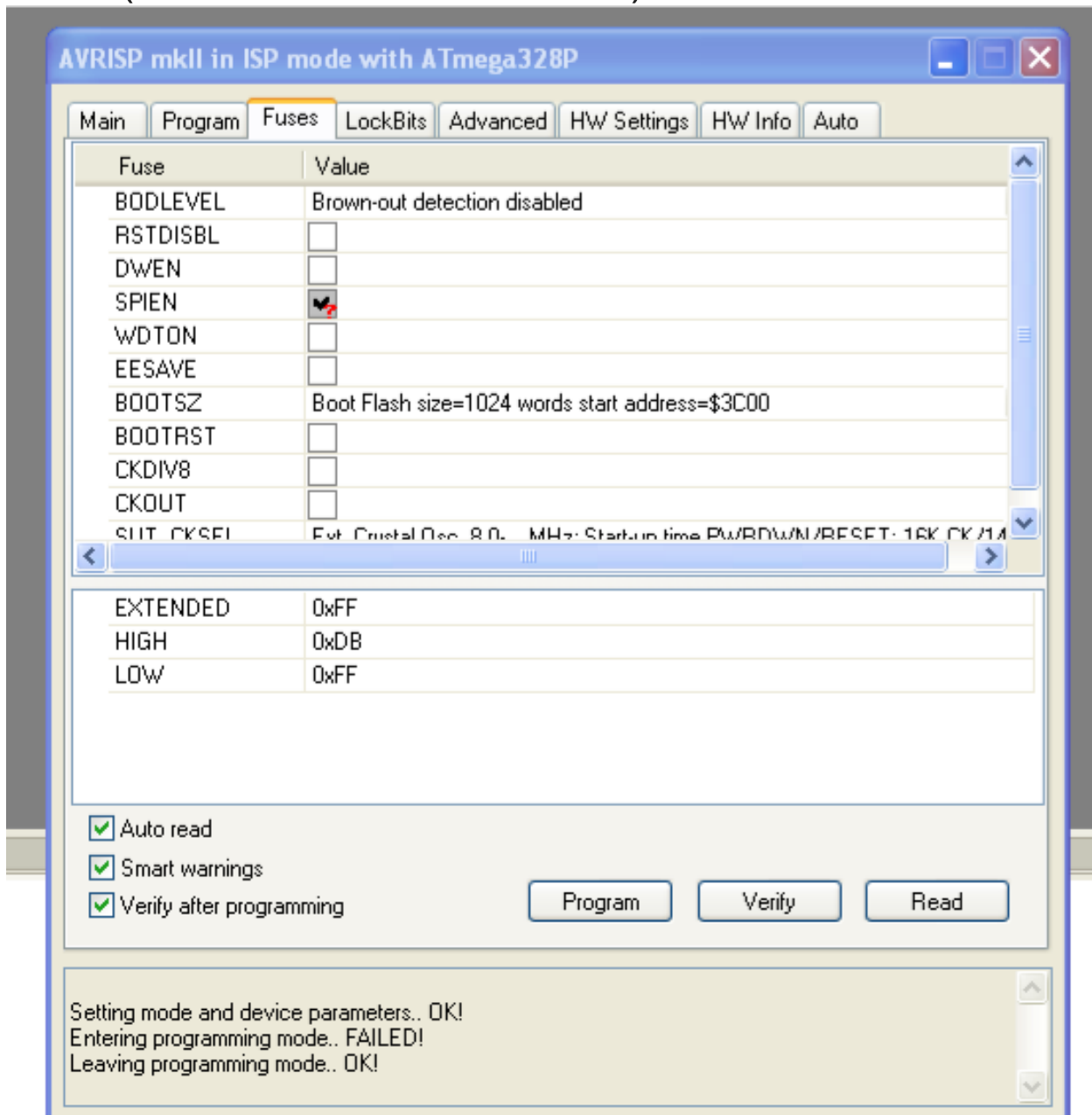
I used 6 solder-less breadboard leads and connected them directly into the female header of the AVRISP MK2 programmer, then I soldered the other ends directly to the ATMEL chip on the pcb.
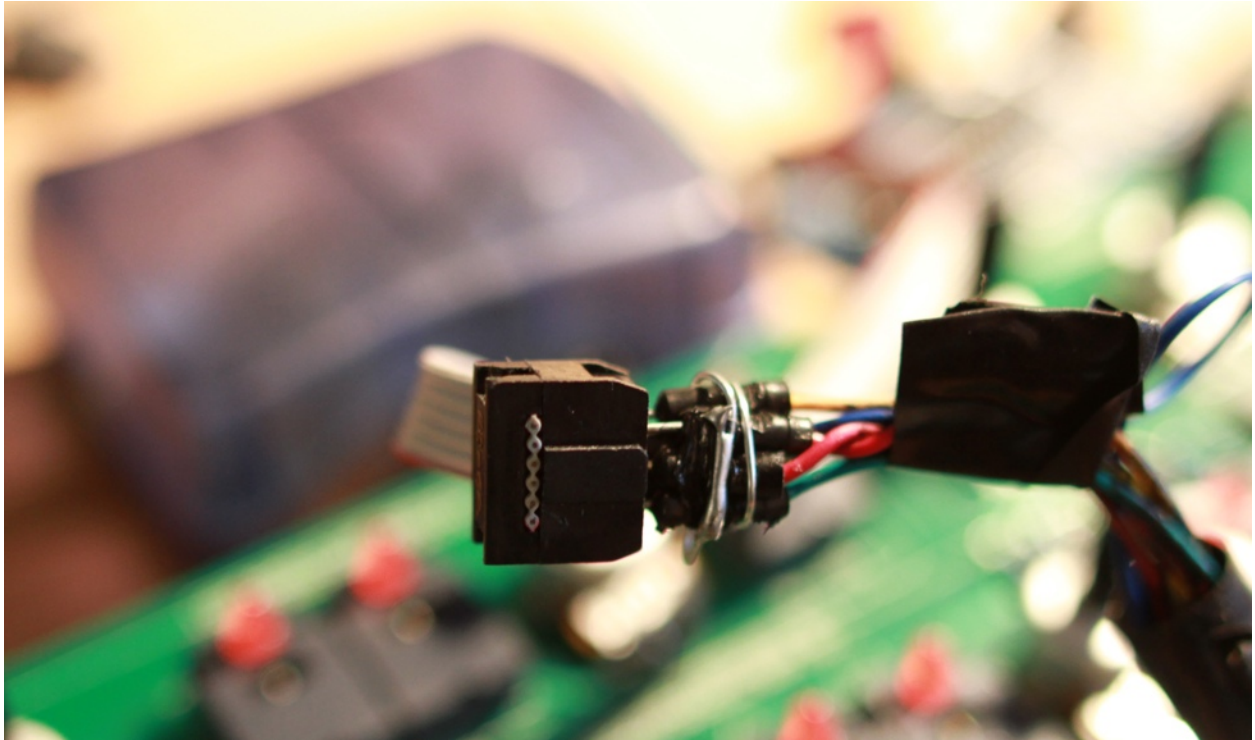
HEX UPLOAD

We use AVR STUDIO 4 to burn the HEX using an AVRISP2 Usb programer.

IMPORTANT: Fuse settings are as follows: 0xFF 0xDB 0xFF (see attached screen shot).

CONFIGURING PROFESSOR

Once the new firmware is uploaded, please use the software to upload the factory midi setup to the professor. Simply open the app, select POLYTECH in the midi out window and click **TRANSMIT**

Professor should blink it's leds randomly during the upload stage, you are done!

Alkex_Professor_V3_0

POLY-MOD

		FREQ A	PWA	FILT
4	63	3	9	14

FILT ENV   OSC B   —— DESTINATION ——

OSCILLATOR A

88	15	20	58	17

FREQ   — SHAPE —   PW   SYNC

MIXER

102	60	89

OSC A   OSC B   NOISE

FILTER

85	106	114	110
CUTOFF	RESO	ENV AMT	KBD
104	105	113	109
ATTACK	DECAY	SUSTAIN	RELEASE

LFO

22	59	23	24	25

SYNC   RATE   —— SHAPE ——

OSCILLATOR B

86	57	26	27	28	2	29	30

FREQ   FINE   —— SHAPE ——   PW   LOFREQ KBD

AMPLIFIER

119	115	107	117
ATTACK	DECAY	SUSTAIN	RELEASE

WHEEL-MOD

	FREQ A	B	PWA	PWB	FILT
90	31	35	41	46	47

LFO NOISE   —— DESTINATION ——

61	21	▸ OFF ▸ ON ▸ LEGATO ON	53	62

GLIDE   UNISON   DETUNE

66	111	55	56
RELEASE	VOLUME	HOLD	LEGATO

MODE MACHINES®

PRESET1 LOAD SAVE   PRESET2 LOAD SAVE   PRESET3 LOAD SAVE   CHANNEL: 1   TRANSMIT

MIDI OUTPUT: Port 1 Ploytec GmbH

< CHANGE >