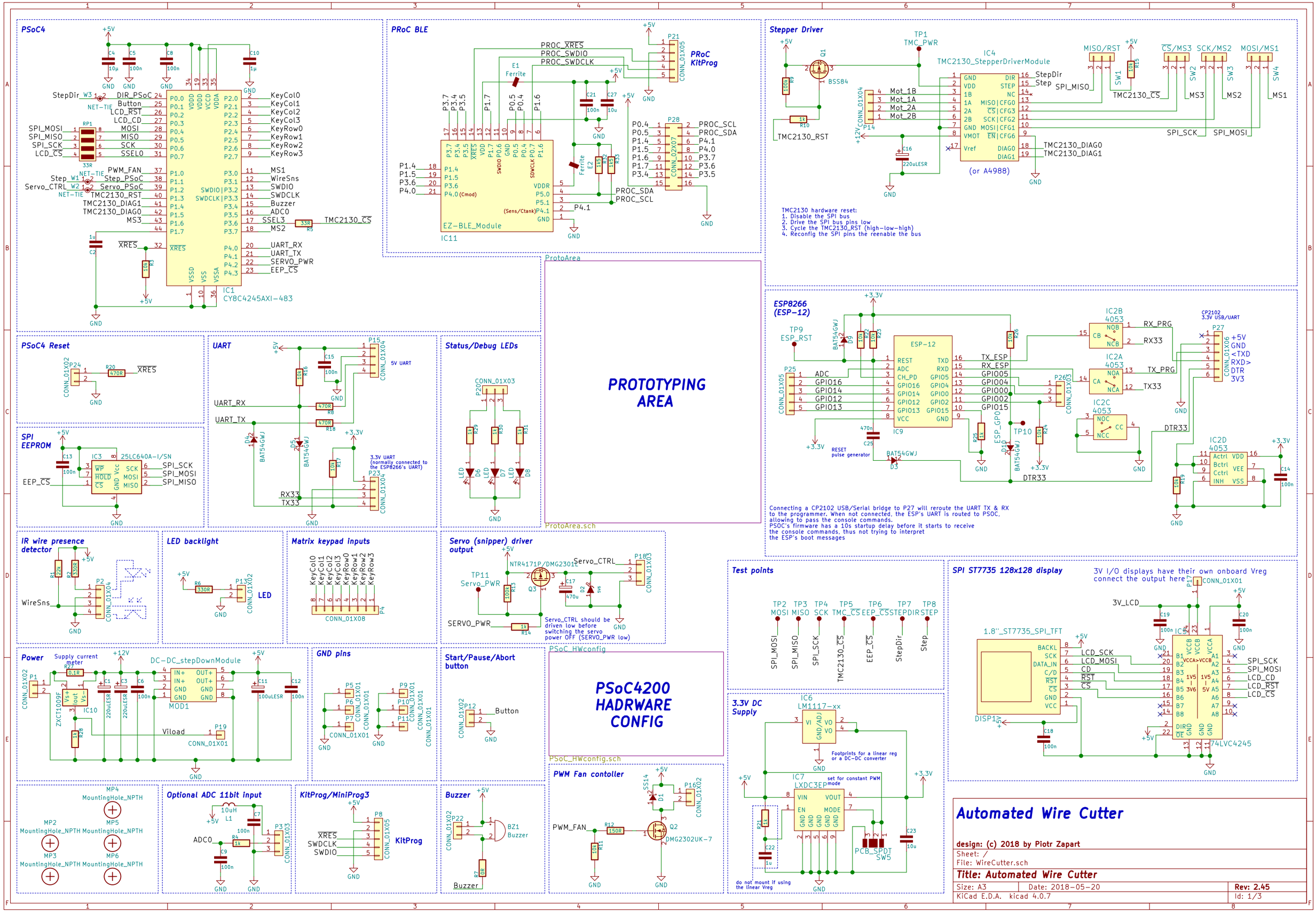
PSoC4
IC1
CY8C4245AXI-483
PRoC BLE
IC11
EZ-BLE_Module
PRoC KitProg
Stepper Driver
IC4
TMC2130_StepperDriverModule
(or A4988)
TMC2130 hardware reset:
1. Disable the SPI bus
2. Drive the SPI bus pins low
3. Cycle the TMC2130_RST (high-low-high)
4. Reconfig the SPI pins the reenable the bus
ESP8266 (ESP-12)
IC9
ESP-12
RESET pulse generator
IC2B 4053
IC2A 4053
IC2C 4053
IC2D 4053
CP2102 3.3V USB/UART
Connecting a CP2102 USB/Serial bridge to P27 will reroute the UART TX & RX to the programmer. When not connected, the ESP's UART is routed to PSOC, allowing to pass the console commands.
PSOC's firmware has a 10s startup delay before it starts to receive the console commands, thus not trying to interpret the ESP's boot messages
PSoC4 Reset
SPI EEPROM
IC3
25LC640A-I/SN
UART
5V UART
3.3V UART (normally connected to the ESP8266's UART)
Status/Debug LEDs
PROTOTYPING AREA
ProtoArea
ProtoArea.sch
IR wire presence detector
LED backlight
LED
Matrix keypad inputs
Servo (snipper) driver output
NTR4171P/DMG2301L
Servo_CTRL should be driven low before switching the servo power OFF (SERVO_PWR low)
Test points
SPI ST7735 128x128 display
3V I/O displays have their own onboard Vreg connect the output here
1.8"_ST7735_SPI_TFT
74LVC4245
Power
Supply current meter
DC-DC_stepDownModule
MOD1
GND pins
Start/Pause/Abort button
PSoC4200 HADRWARE CONFIG
PSoC_HWconfig
PSoC_HWconfig.sch
3.3V DC Supply
IC6
LM1117-xx
Footprints for a linear reg or a DC-DC converter
IC7
LXDC3EP
set for constant PWM mode
do not mount if using the linear Vreg
PWM Fan contoller
Optional ADC 11bit input
KitProg/MiniProg3
KitProg
Buzzer
Automated Wire Cutter
design: (c) 2018 by Piotr Zapart
Sheet: /
File: WireCutter.sch
Title: Automated Wire Cutter
Size: A3
Date: 2018-05-20
Rev: 2.45
KiCad E.D.A. kicad 4.0.7
Id: 1/3