

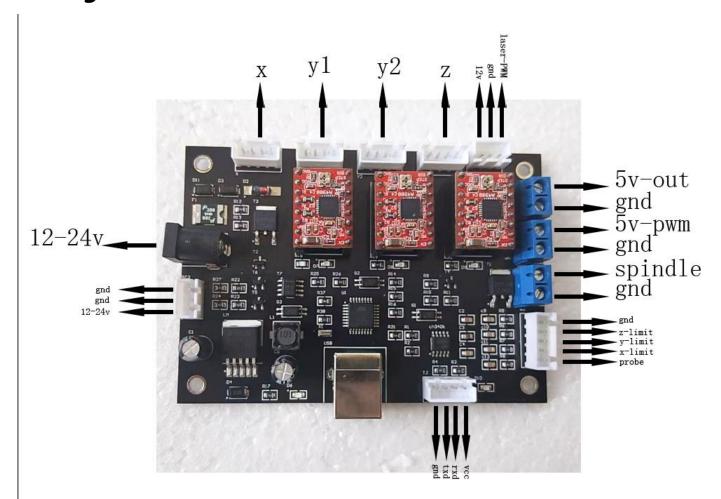
Introduction

- Mega328p processor
- Compatible with Candle, Bcnc, Lightburn, Lasergrbl,
 CNC3D COMMANDER...
- Support X,Y1,Y2,Z axis
- Support a4988/drv8825/tmc2208/tmc2209 stepper driver
- Support Homing,software/hardware limit,and Z probe
- Support 3pin laser
- Support 12-24V DC

Auto-cut off power when voltage exceeding 30V.

Automatically select external power supply as the main control input power, and prevent reverse power transmission, protect USB port.

Wiring



PROBE Z probe

X-LIM X limit, Always on

Y-LIM Y limit, Always on

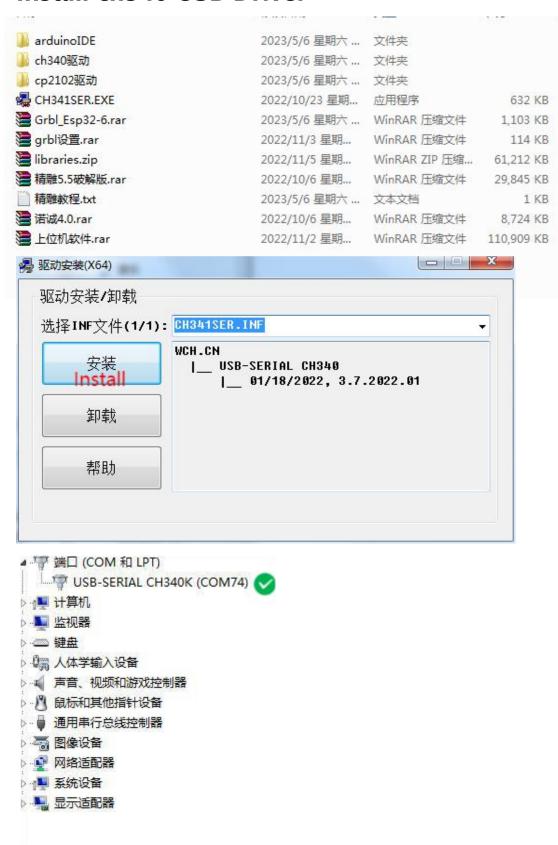
Z-LIM Z limit, Always on

GND X,Y,Z limit com, Z probe

PWM PWM output

GND PWM

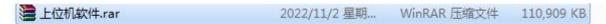
Install ch340 USB Driver



See CH340K, successfully install

Software

Candle, CNC3dCommander and Bcnc.

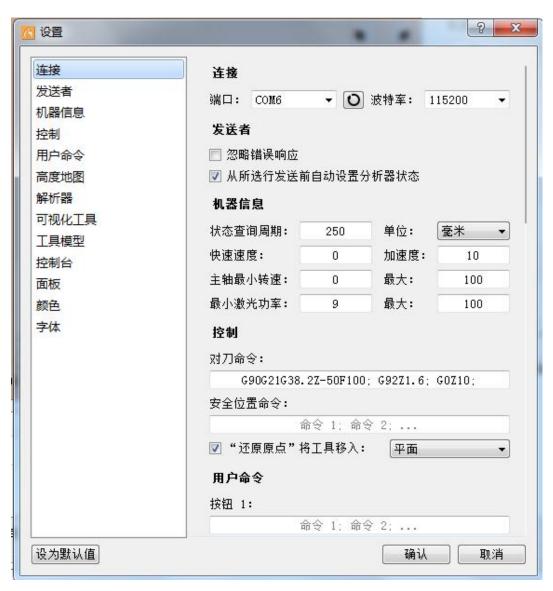


1.Candle

Unzip candle and open candle.exe



Confirm COM and baudrate.





2.BCNC

Plug control board to PC via USB cable, and enter bcnc.exe



Click CAM, select language.



Enable 6 axis display, then reboot software.



Click file, select COM and open it.

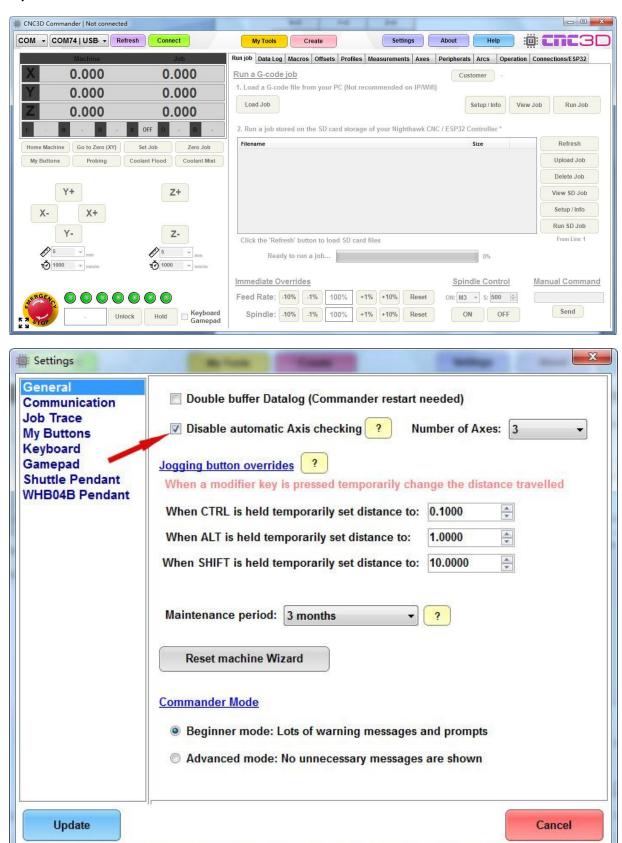


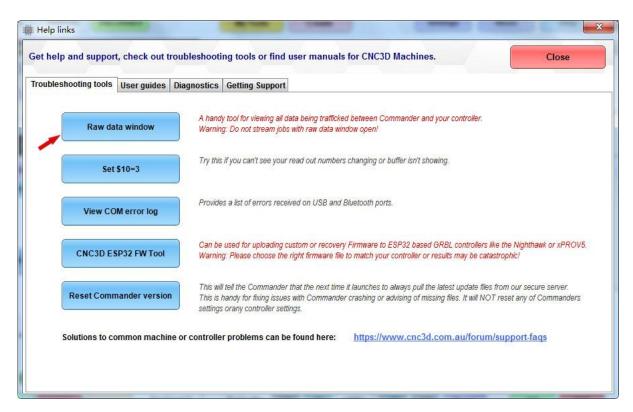




3.CNC3d Commander

Open CNC3dcommander as below







Control board setting

Enter Candle and get board connected, set below parameters.





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Grbl参数配置说明
$0=10 (steppulse, usec) 步进脉冲时间,建议10us
$1=25(step idle delay, msec) 步进电机除能延迟时间
$2=0 (stepport invert mask:00000000) 步进电机驱动端口有效位掩码
$3=6 (dirport invert mask:00000110) 步进电机驱动方向位掩码
$4=0 (stepenable invert, bool) 步进电机使能取反有效位设置
$5=0(limit pins invert, bool) 限位IO口取反有效位设置
$6=0(probe pin invert, bool) 探针IO口取反有效位设置
$10=3(status report mask:00000011) 状态报告掩码
$11=0.020(junction deviation, mm) 节点偏差
$12=0.002(arc tolerance, mm) 圆弧公差
$13=0(report inches, bool) 位置坐标的单位设置
$20=0(soft limits, bool) 软限位开关
$21=0(hard limits, bool) 硬限位开关
$22=0(homing cycle, bool) 归位使能位
$23=1(homing dir invert mask:00000001) 归位方向位掩码
$24=50.000(homing feed, mm/min) 归位进给速率
$25=635.000(homing seek, mm/min) 归位快速速率
$26=250(homing debounce, msec) 归位边界反弹时间
$27=1.000(homing pull-off, mm) 归位点坐标离限位器触发点的距离
$100=314.961(x, step/mm) x轴速度转化参数 步/毫米
$101=314.961(y, step/mm) y轴速度转化参数 步/毫米
$102=314.961(z, step/mm) z轴速度转化参数 步/毫米
$110=635.000(x max rate, mm/min) x轴最大速率 毫米/分钟
$111=635.000(y max rate, mm/min) y轴最大速率 毫米/分钟
$112=635.000(z max rate, mm/min) z轴最大速率 毫米/分钟
$120=50.000(x accel, mm/sec^2) x轴加速度 毫米/(s*s)
$121=50.000(y accel, mm/sec^2) y轴加速度毫米/(s*s)
$122=50.000(z accel, mm/sec^2) z轴加速度 毫米/(s*s)
$130=225.000(x max travel, mm) x轴最大行程
$131=125.000(y max travel, mm) y轴最大行程
$132=170.000(z max travel, mm) z轴最大行程 og. csdn. net/qq_30907913
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Homing

Type \$22=1 enable, \$22=0disable

Direction

- X + Y + Z + O
- X Y + Z + 1
- X + Y Z + 2
- X Y Z + 3
- X + Y + Z 4
- X-Y+Z-5
- X + Y Z 6
- X- Y- Z- 7

Defult \$23=0,Upper right corner, Z-axis up

- \$23=1, Upper left corner
- \$23=2, Bottom right corner
- \$23=3, Bottom left corner
- \$23=4, Z axis negative Homing