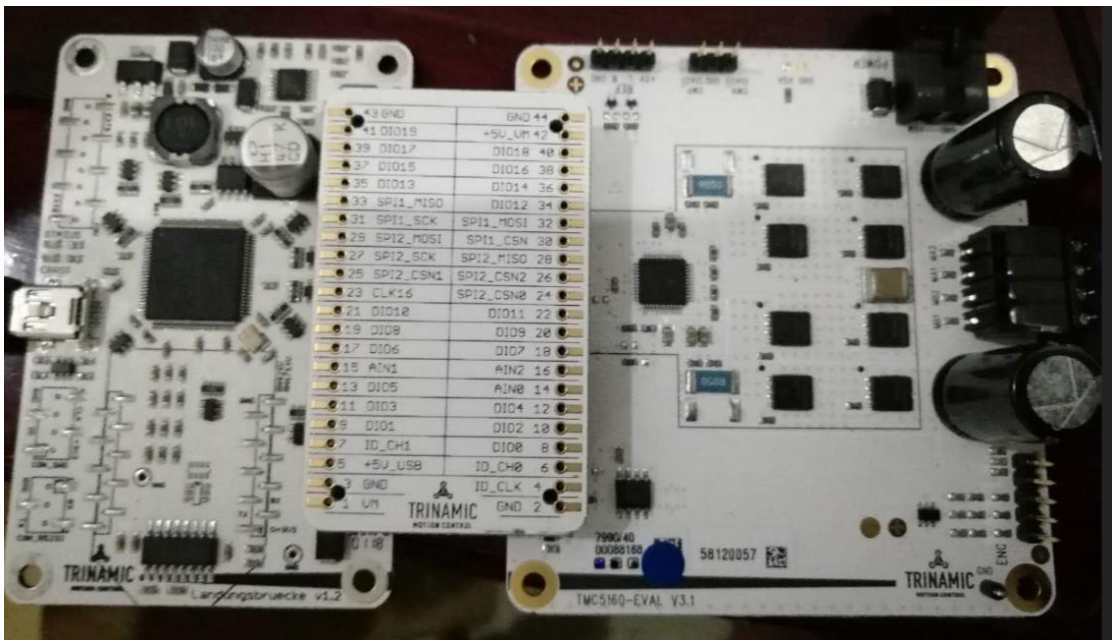
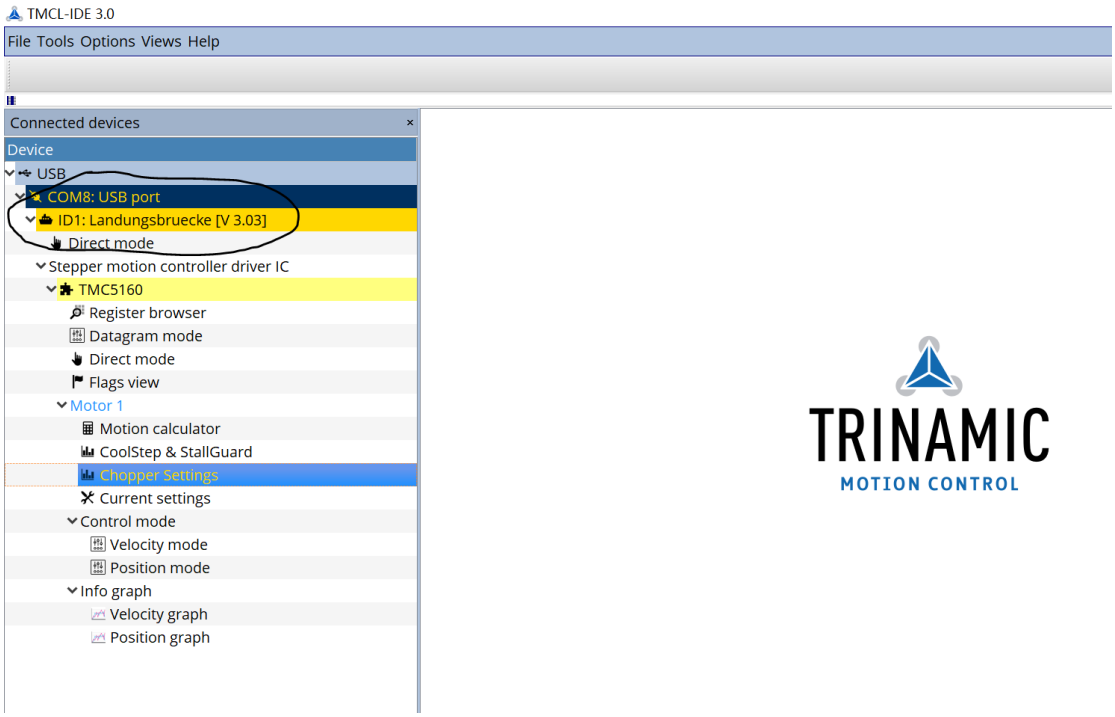
一．

按照下面组装，注意接反有可能烧坏电路板，
注意电源接线正负极，PCB 板上标有电源正负



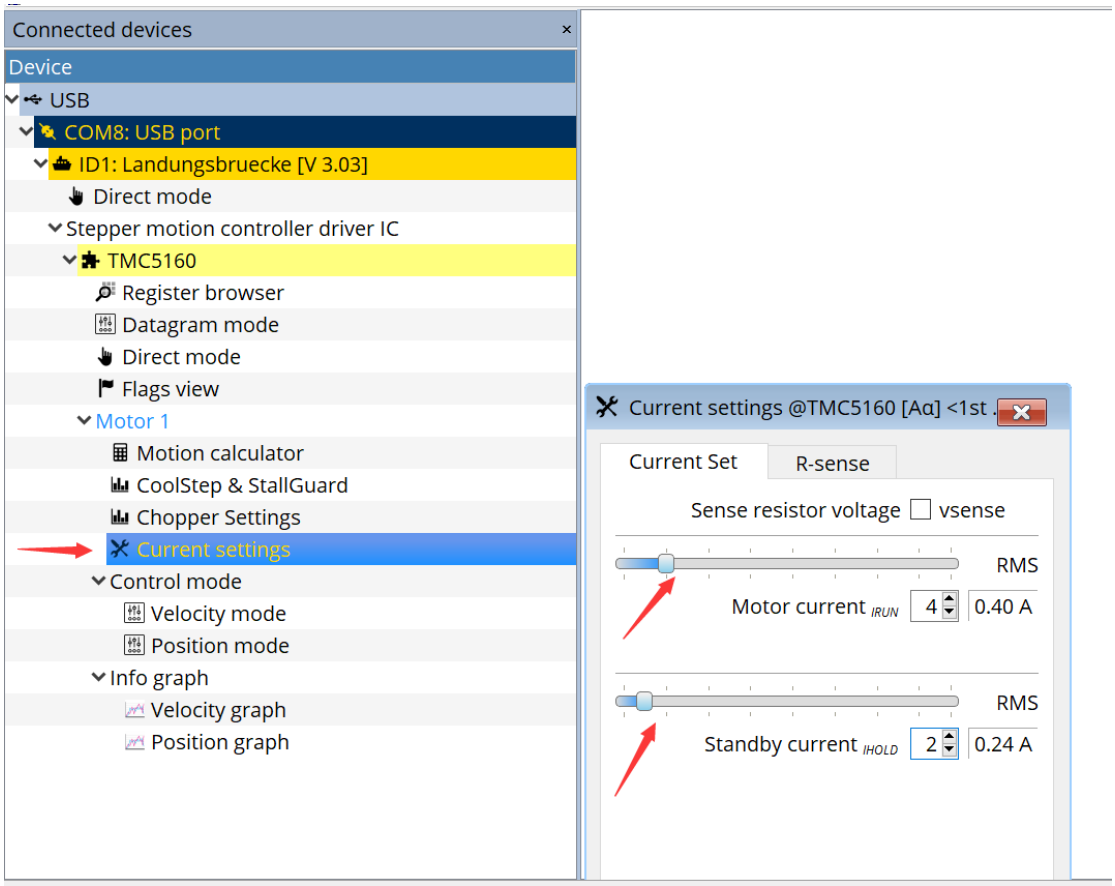
二．下载最新 TMCL-IDE 软件 https://www.trinamic.com/support/software/tmcl-ide/
安装完成后单击如下软件图标

连接成功后会自动显示 所连接的模块 如下图 TMC5160

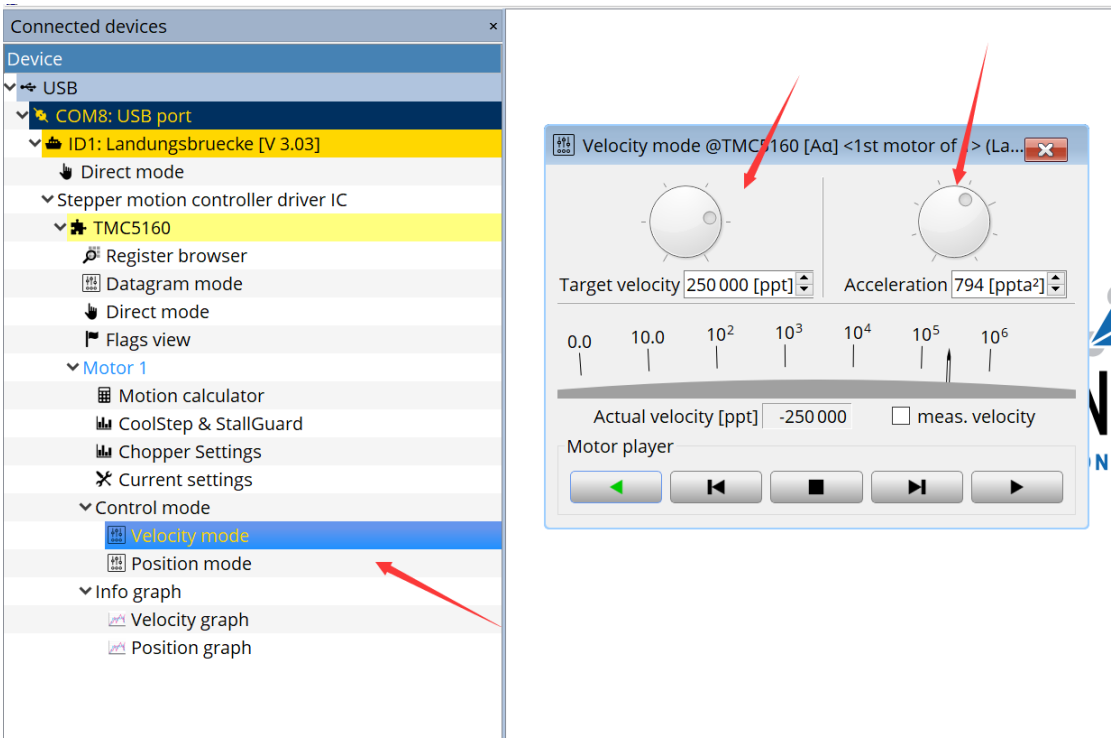


三．设置电流

根据所连接电机的电流值设置运行电流（motor cutrrent）和停止电流（Standby current）

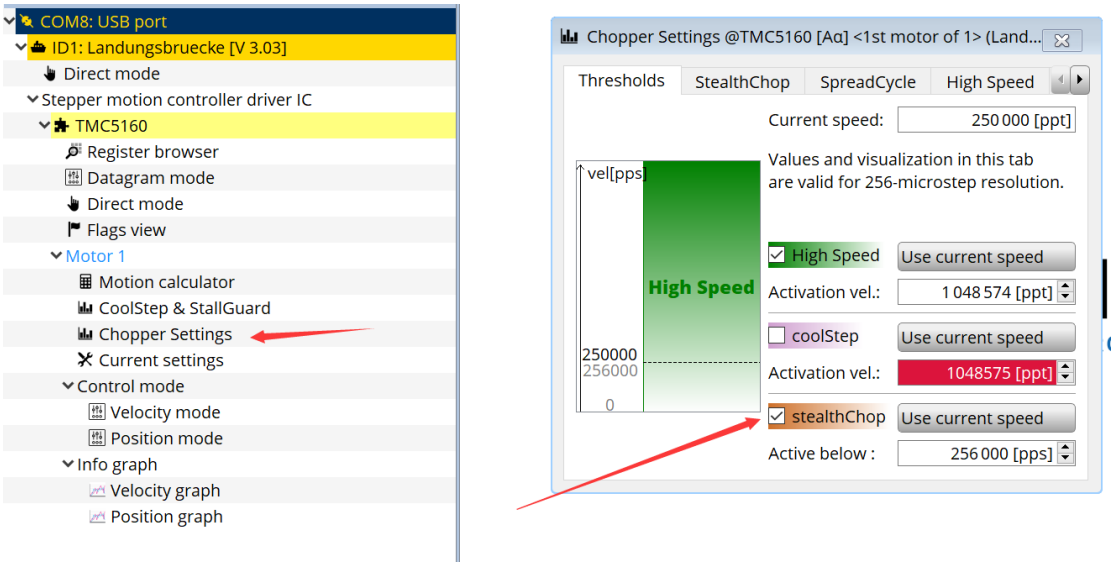


四．速度模式

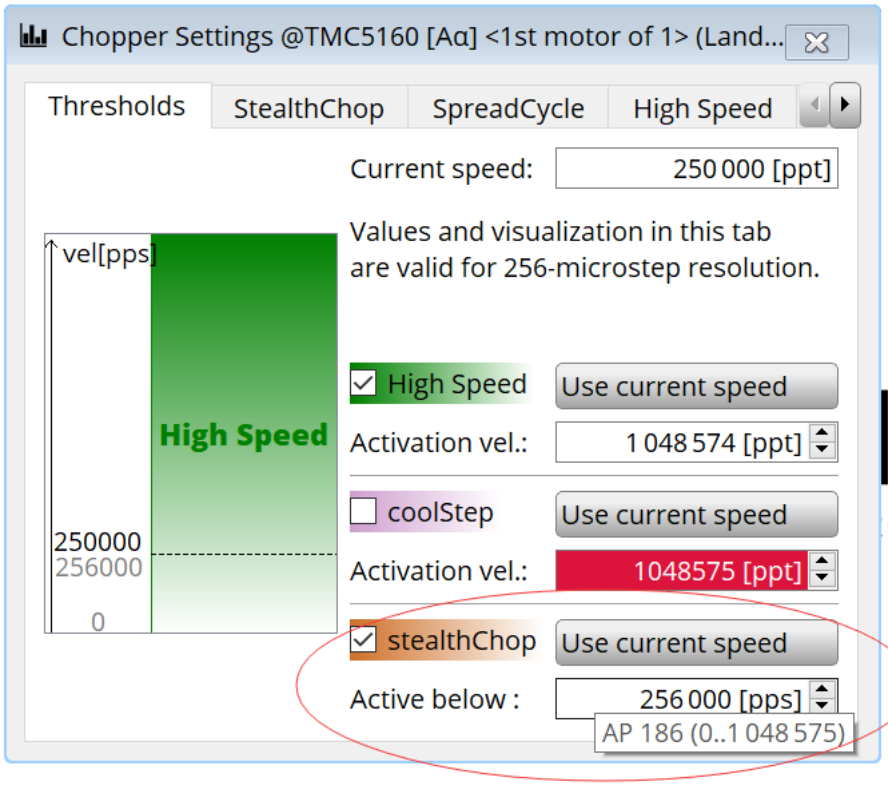


设置最大速度和加速度

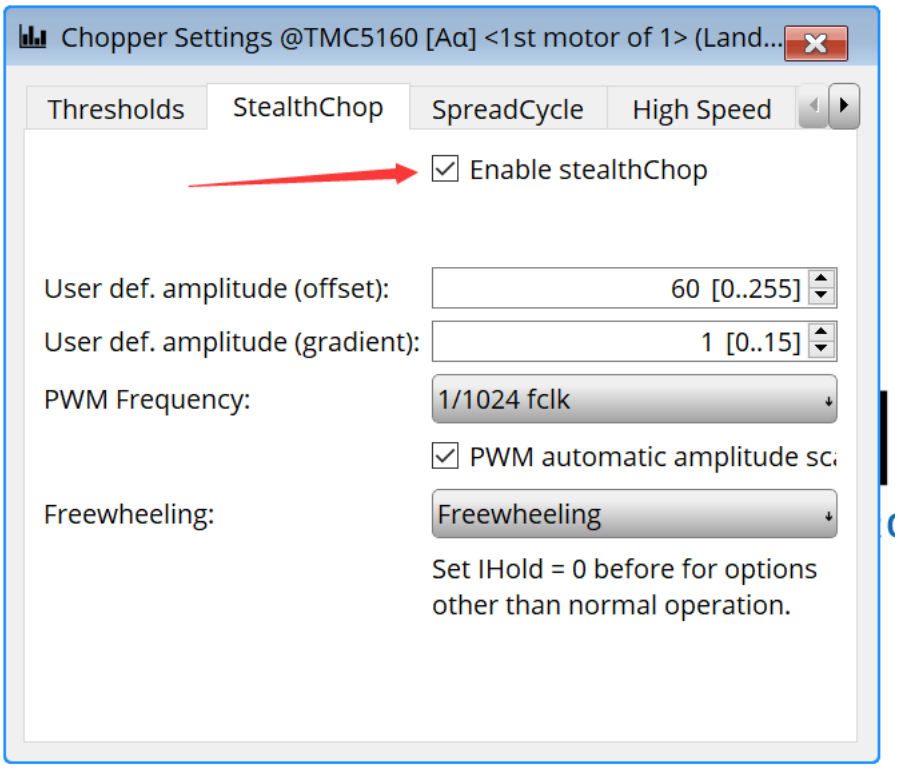
五．模式选择



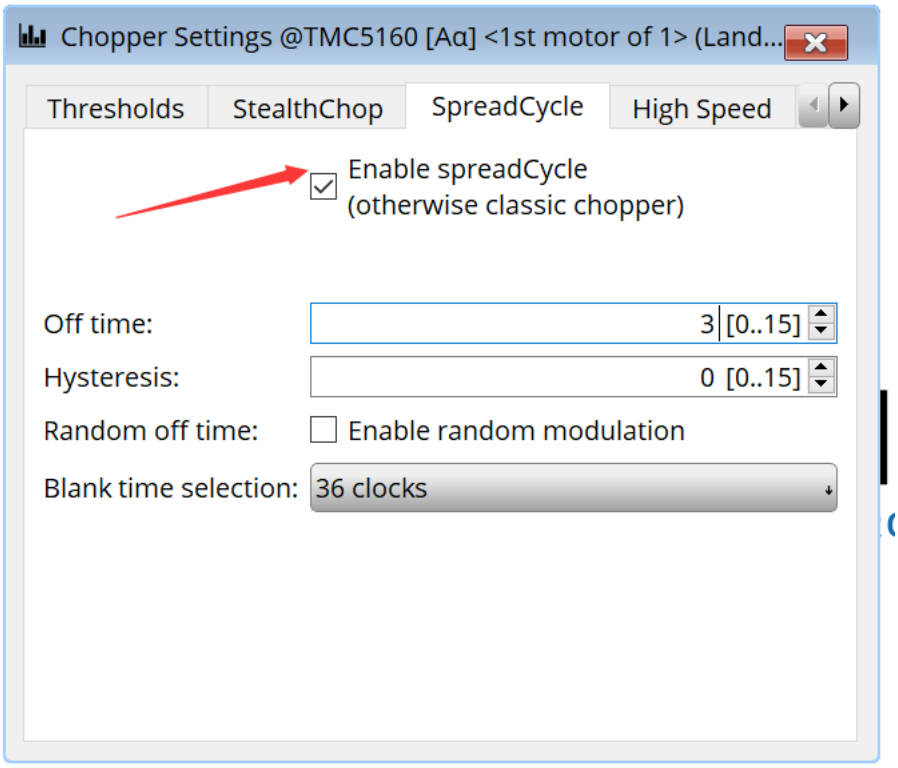
Stealthchop 静音模式选择，



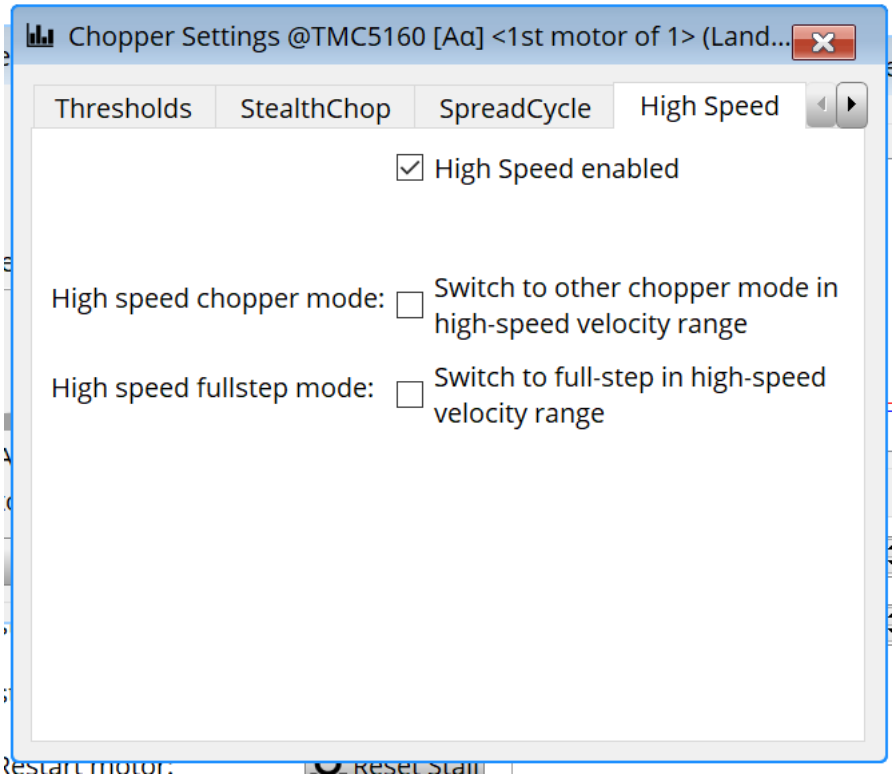
定义速度低于某个数值时　静音模式 Stealthchop 启动



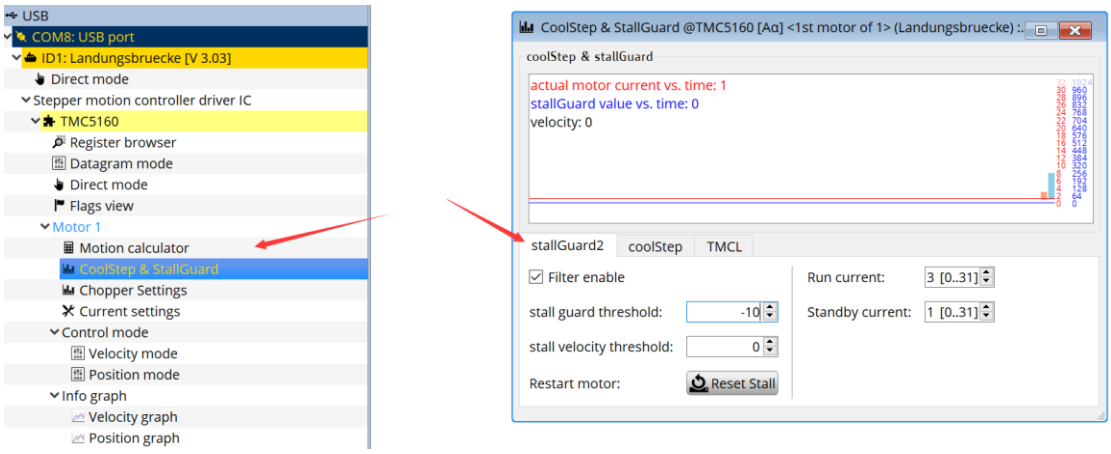
使能 Stealthchop 模式 详细介绍参照 TMC5160datasheet



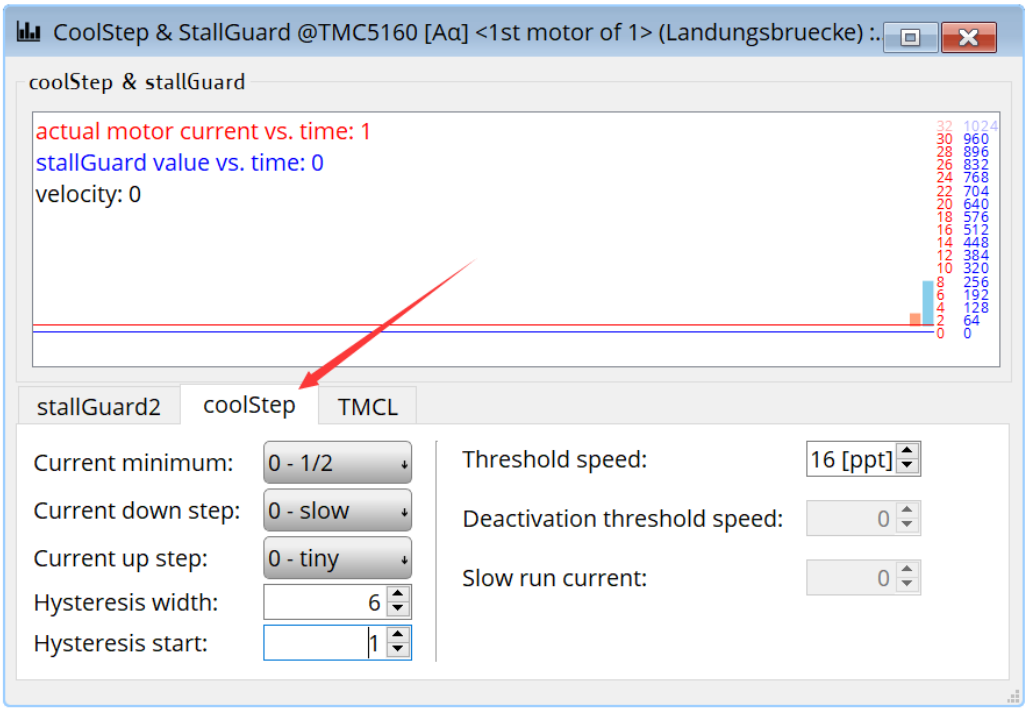
使能 Spreadcycle 模式　详细介绍参照 TMC5160datasheet



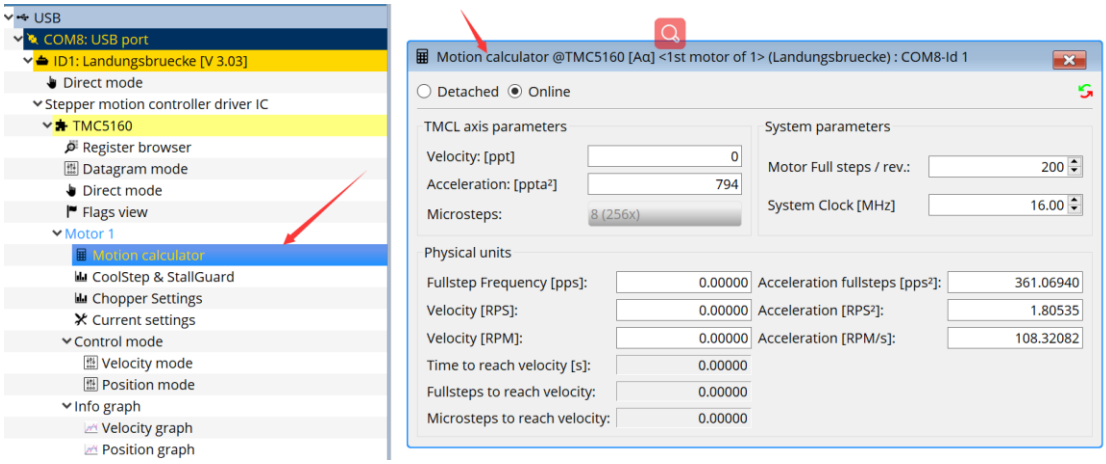
设置高速模式



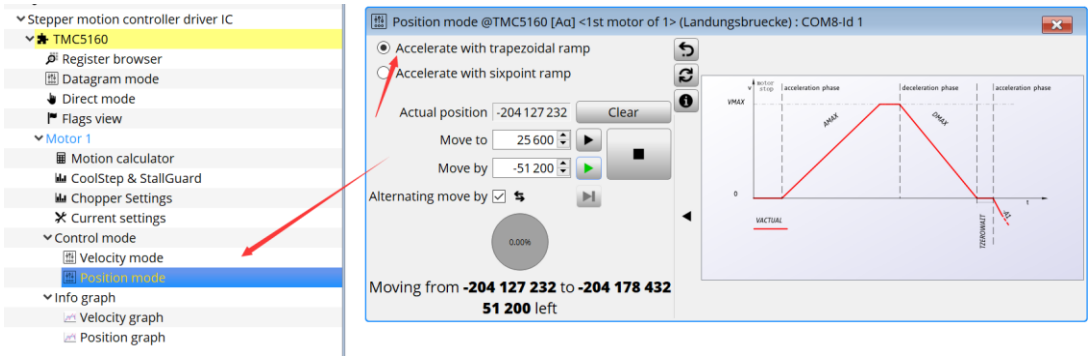
Stallguard 模式配置（无传感器力矩检测） 参考 datasheet Stallguard 介绍



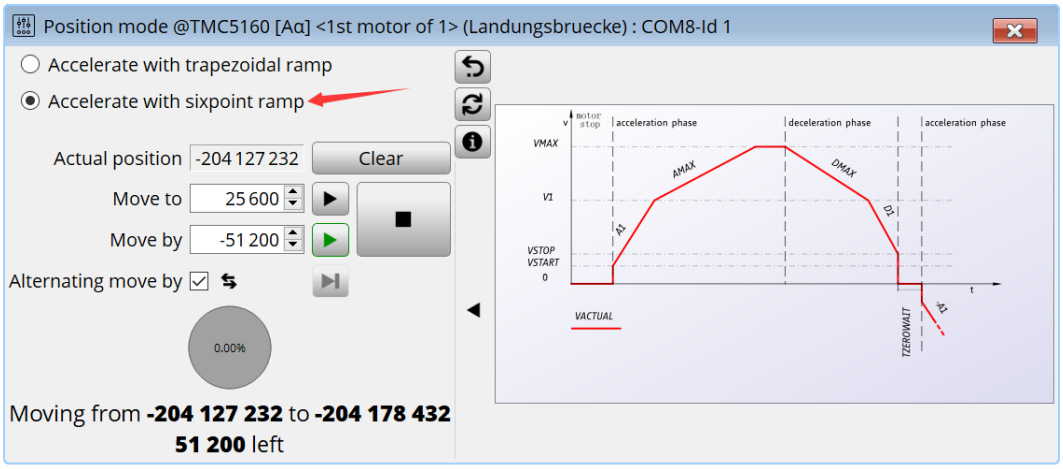
Coolstep 模式配置 （电流随负载动态调节）参考 Datasheet 介绍



计算器功能

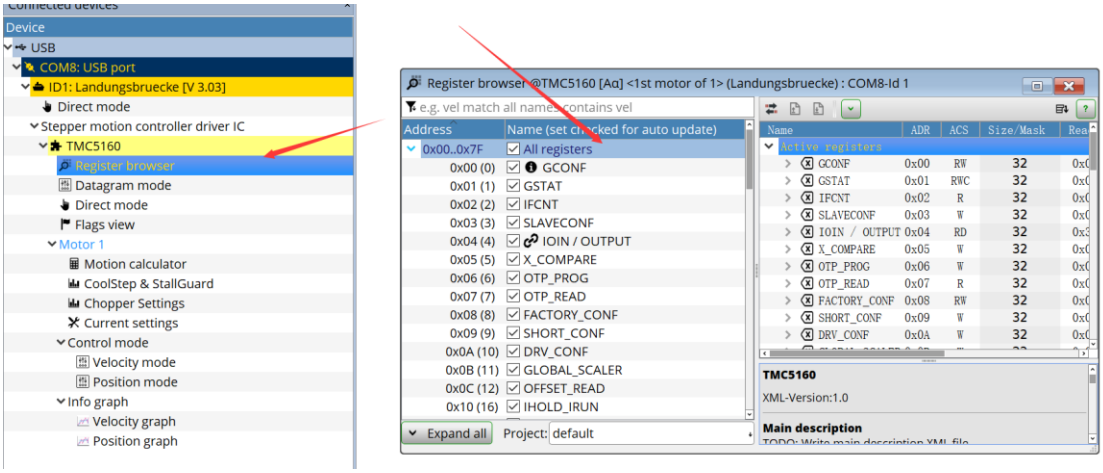


位置控制模式（梯形加速）

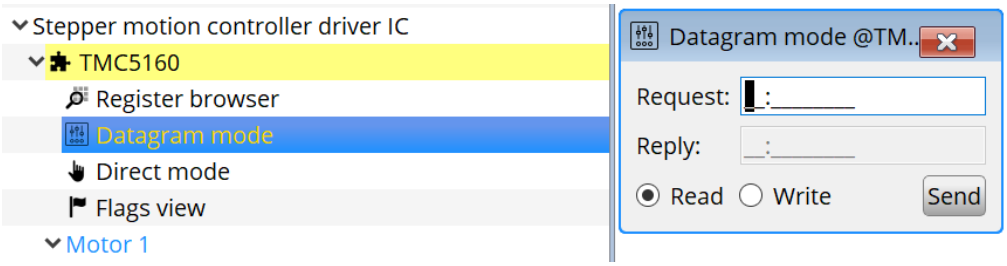


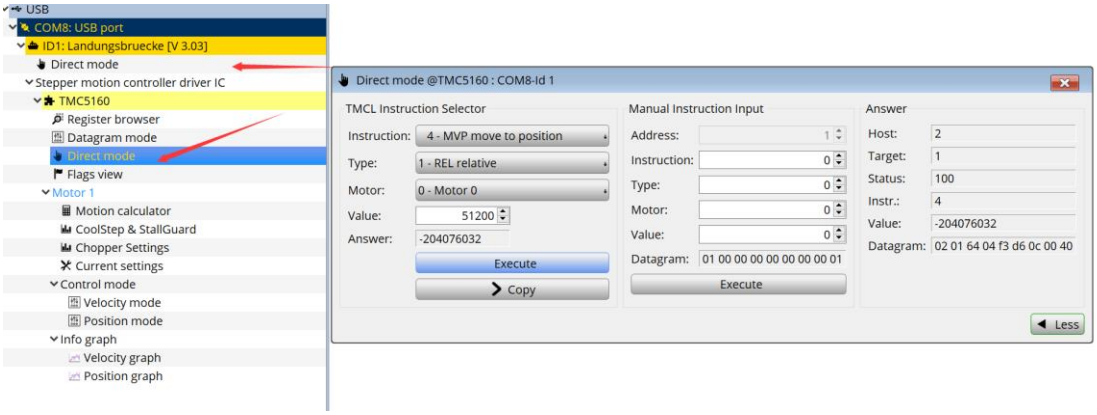
Sixpoint 加速模式

六．寄存器配置

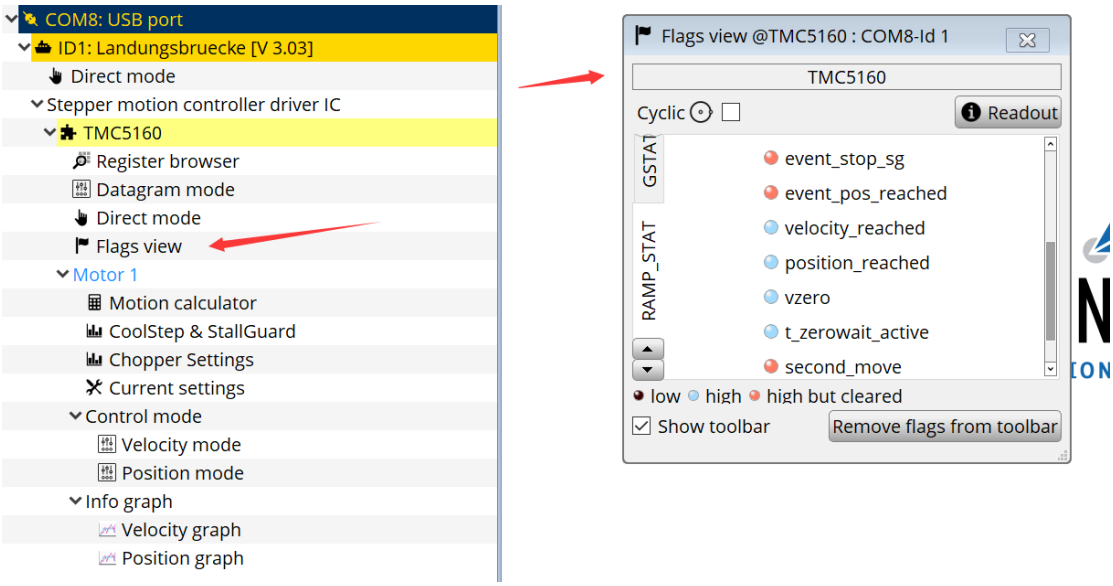


上图为 TMC5160 内部寄存器配置

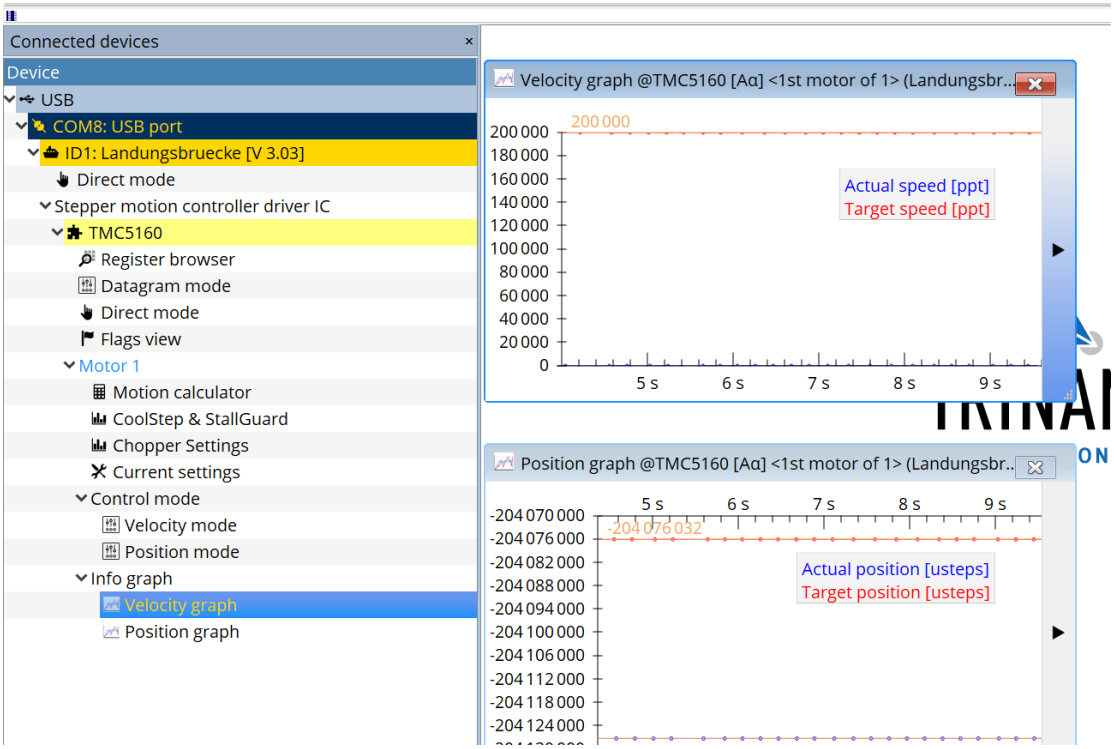




直接控制模式



信号反馈



示波器功能

重点为如下模式的参数配置，配置好的话 会得到非常好的电机动态效果