



会称重的小东西Little smart

Revolutions from Version 1.0 to 3.0

Team member:

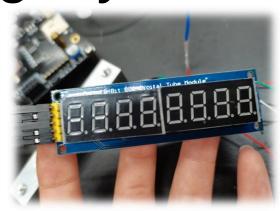
张睿贤、周宇轩、张弼弘、冯硕



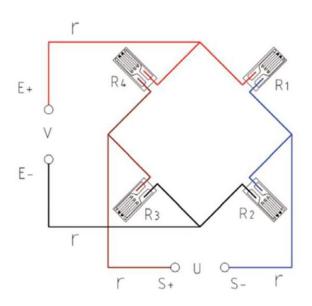


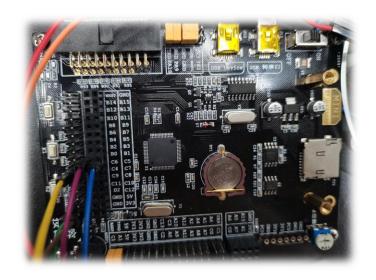
Overall structure: Strain gauge system



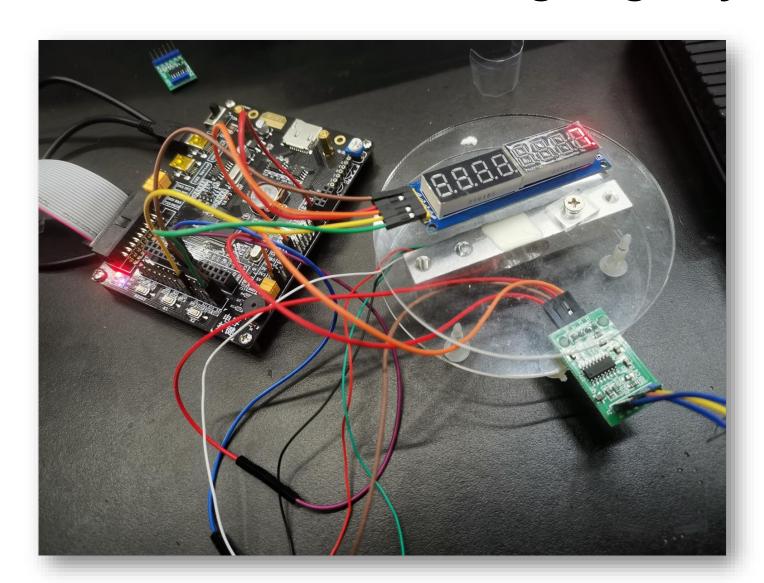


Full bridge circuit→Hx711→STM32→8 digit LED/USART



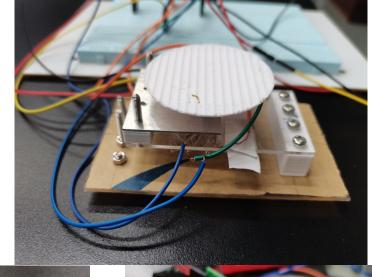


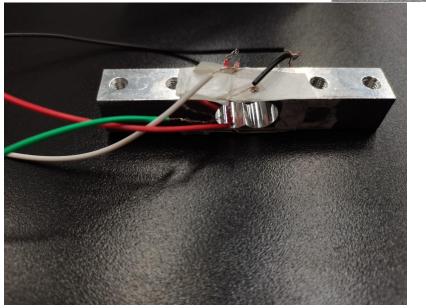
Overall structure: Strain gauge system

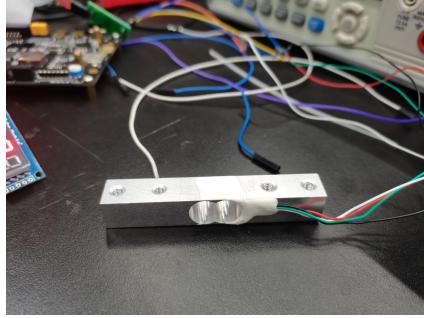


Versions of Little Smart

- 小东西 1.0
- 小东西 2.0
- 小东西 3.0

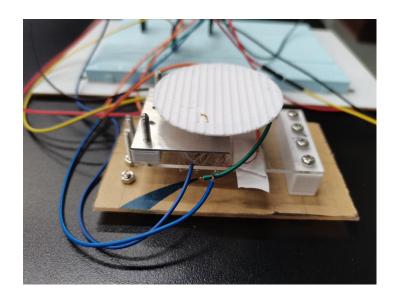




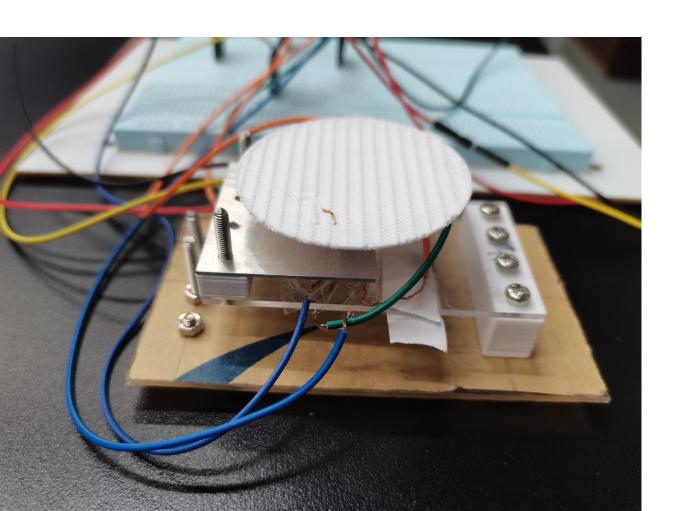


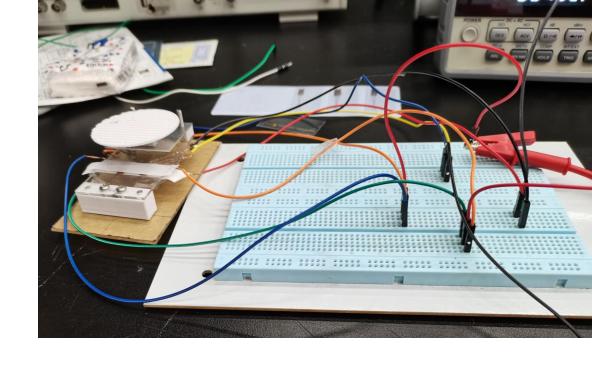
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小东西1.0 (Little Smart 1.0)

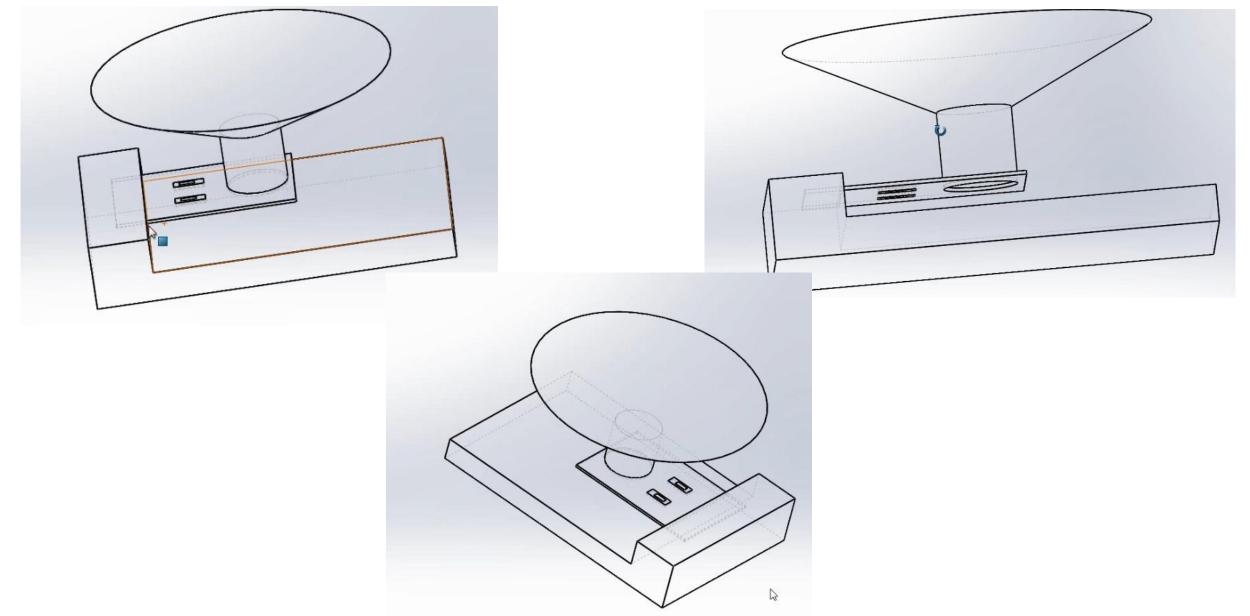




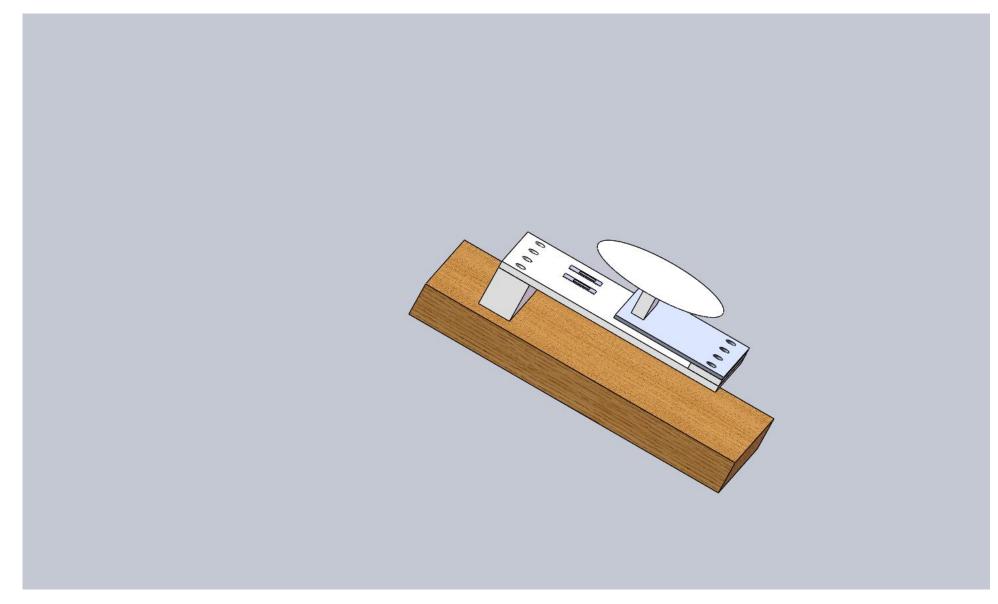
亚克力板作为秤盘 小巧可爱,但过于敏感 过阻尼后恢复较慢,数值不 稳定

尺寸: 40*60*2mm

小东西1.0 (Little Smart 1.0) – 结构初版



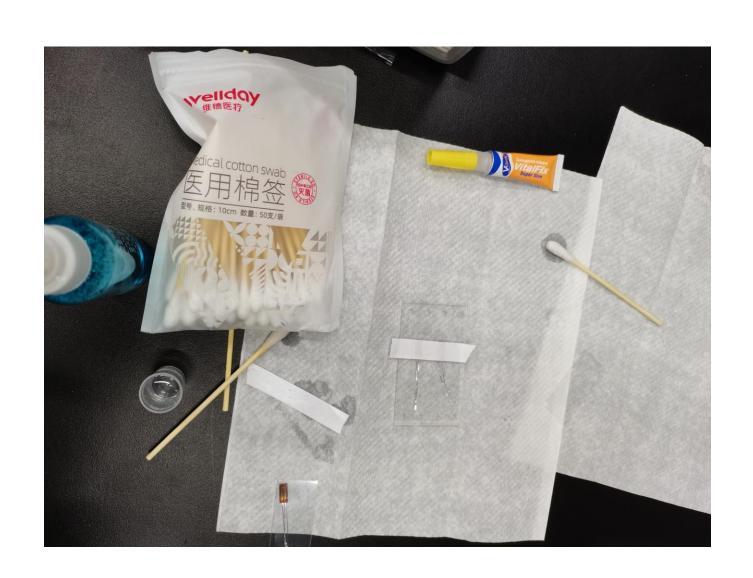
小东西1.0 (Little Smart 1.0) – 结构终版



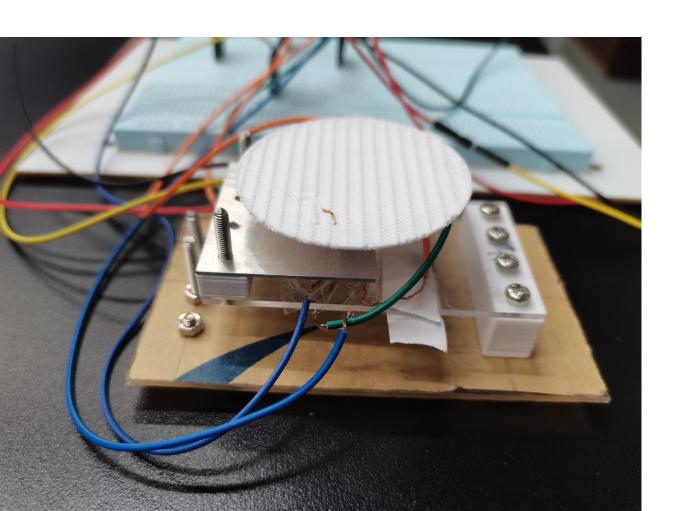
改进

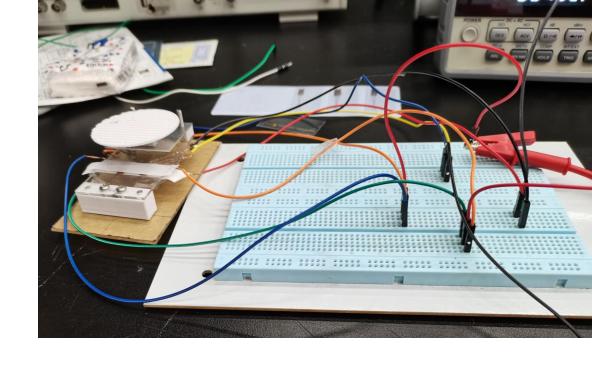
- 整体结构<=>零件组装装配体
- 金属材料<=>亚克力

小东西1.0: 粘应变片



小东西1.0 (Little Smart 1.0)

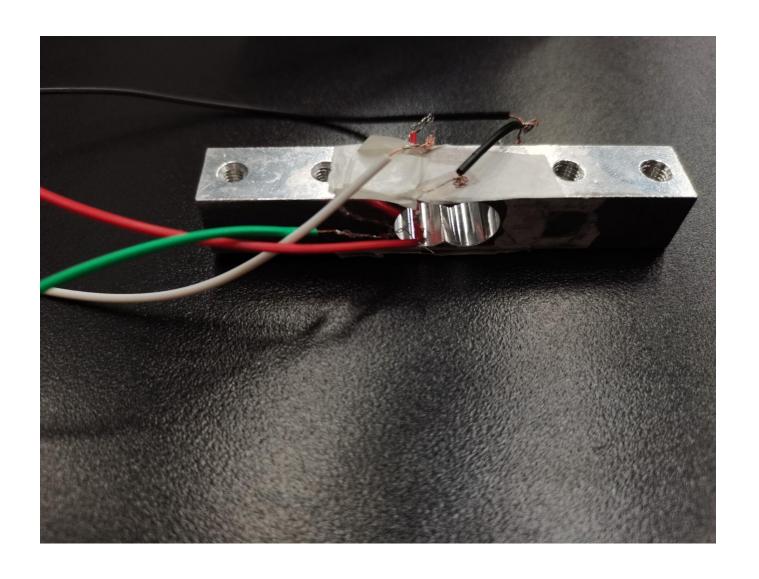




亚克力板作为秤盘 小巧可爱,但过于敏感 过阻尼后恢复较慢,数值不 稳定

尺寸: 40*60*2mm

小东西2.0 broken down



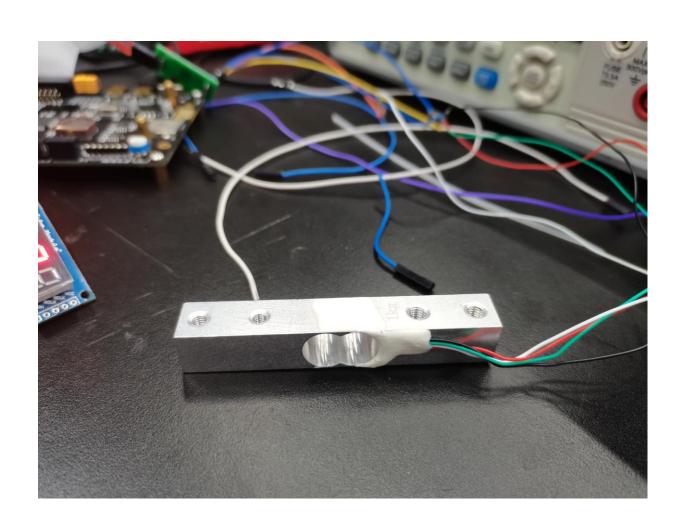
- 高高瘦瘦,可可怜怜
- 用了很久以后,拉线不小心拉断了引脚,**壮烈牺牲**

小东西3.0 粘应变片





小东西3.0



- 高高瘦瘦,健健康康
- 经过很多尝试, 经验丰富, 效果理想!

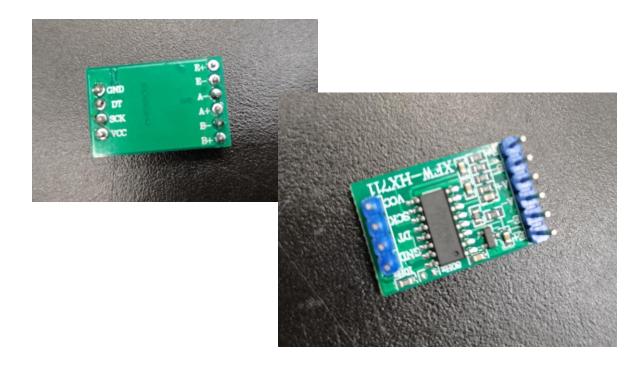
STM32数据处理

• 原本输出小数位 由于较灵敏导致读数过于不稳定 > 舍掉小数位

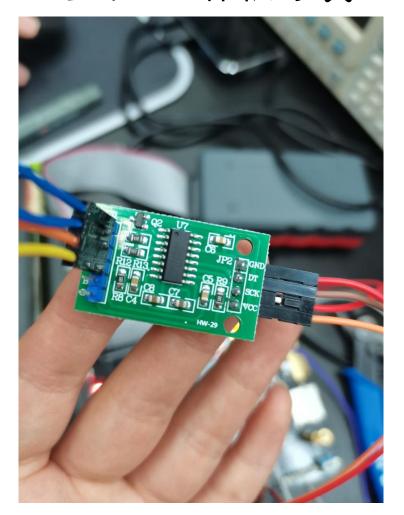
• 数据的代码很复杂 不展示了

Hx711: ADC

• 1号片: 焊了3次, 还是坏了



2号片: 工作很好☆



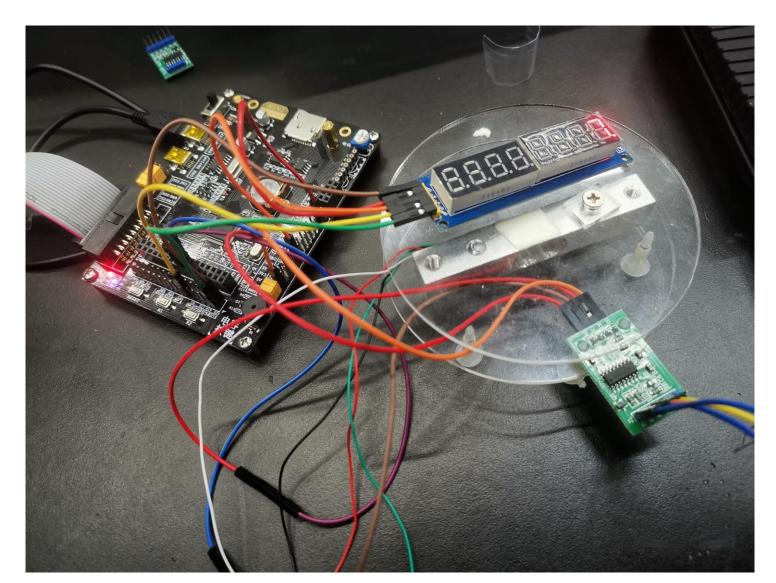
Codes

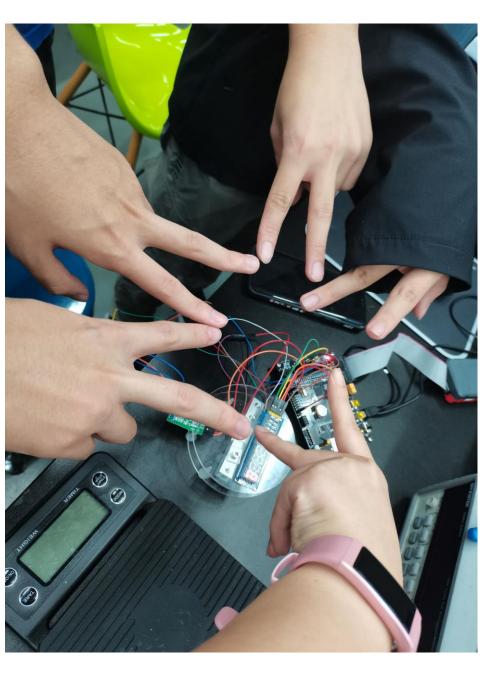
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stm32
LED,
Hx711
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Finally!!!!





Q&A Thank you!









