实验记录

接线顺序

面向电机逆时针转动

示波器1通道对应电机某相反电势

示波器2通道对应电机（黑色电机，两个一样的）的霍尔蓝色线

示波器3通道对应电机（黑色电机，两个一样的）的霍尔白色线

示波器4通道对应电机（黑色电机，两个一样的）的霍尔灰色线

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 示波器通道 | 电机 | 控制板网络 | 控制板GPIO |  |  |
| 通道1 | 某相反电势 |  |  |  |  |
| 通道2 | 霍尔蓝色线 | HALLA | GPIO26 |  |  |
| 通道3 | 霍尔白色线 | HALLB | GPIO24 |  |  |
| 通道4 | 霍尔灰色线 | HALLC | GPIO25 |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| 电机 | 通道4 | 通道3 | 通道2 |
| 黄色绕组A反电势正半周期中间120° | 0 | x | 1 |
| 黄色绕组A反电势负半周期中间120° | 1 | x | 0 |
|  |  |  |  |
| 绿色绕组B反电势正半周期中间120° | 1 | 0 | x |
| 绿色绕组B反电势负半周期中间120° | 0 | 1 | x |
|  |  |  |  |
| 红色绕组C反电势正半周期中间120° | x | 1 | 0 |
| 红色绕组C反电势负半周期中间120° | x | 0 | 1 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 0 | 1 | 1 | 3 | C上B下 | A上B下 |
| 0 | 0 | 1 | 1 | C上A下 | A上C下 |
| 1 | 0 | 1 | 5 | B上A下 | B上C下 |
| 1 | 0 | 0 | 4 | B上C下 | B上A下 |
| 1 | 1 | 0 | 6 | A上C下 | C上A下 |
| 0 | 1 | 0 | 2 | A上B下 | C上B下 |