

Solar Tracking

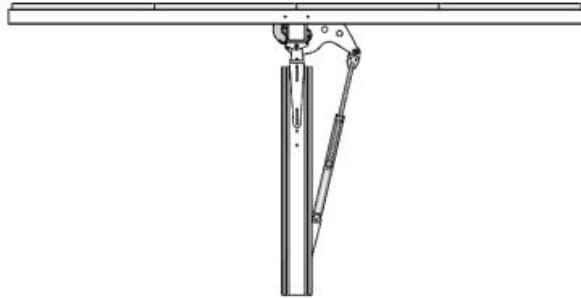
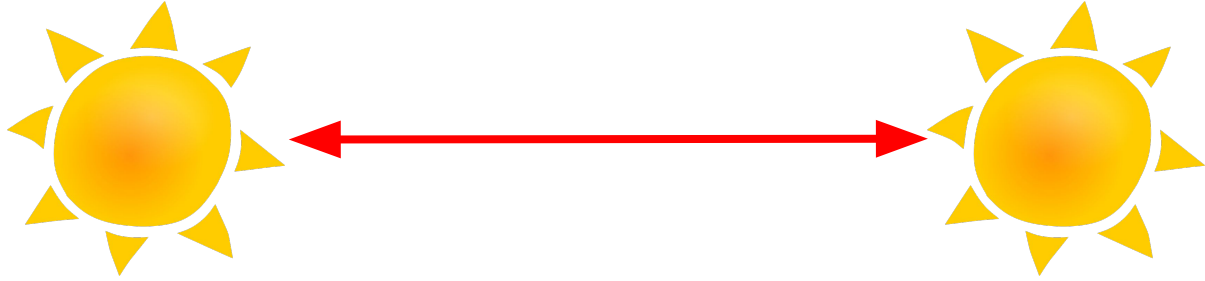
with STM32I152RB



GROUP PGBM

- | | | |
|----|-----------------------|------------|
| 1. | Kittinat Chaichanadee | 2011310576 |
| 2. | Siriwut Thongmak | 2011310840 |
| 3. | Pannawat Benjasup | 2011311103 |
| 4. | Tana Manussiripen | 2011311301 |

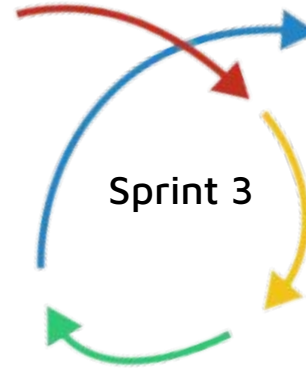
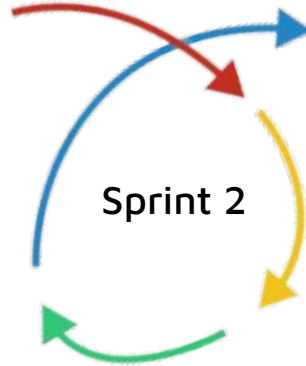
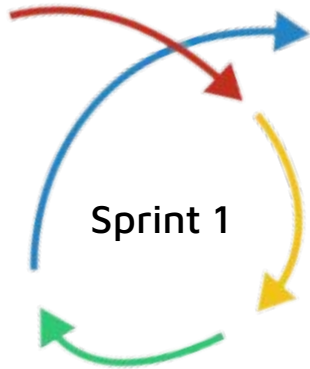
ABSTRACT

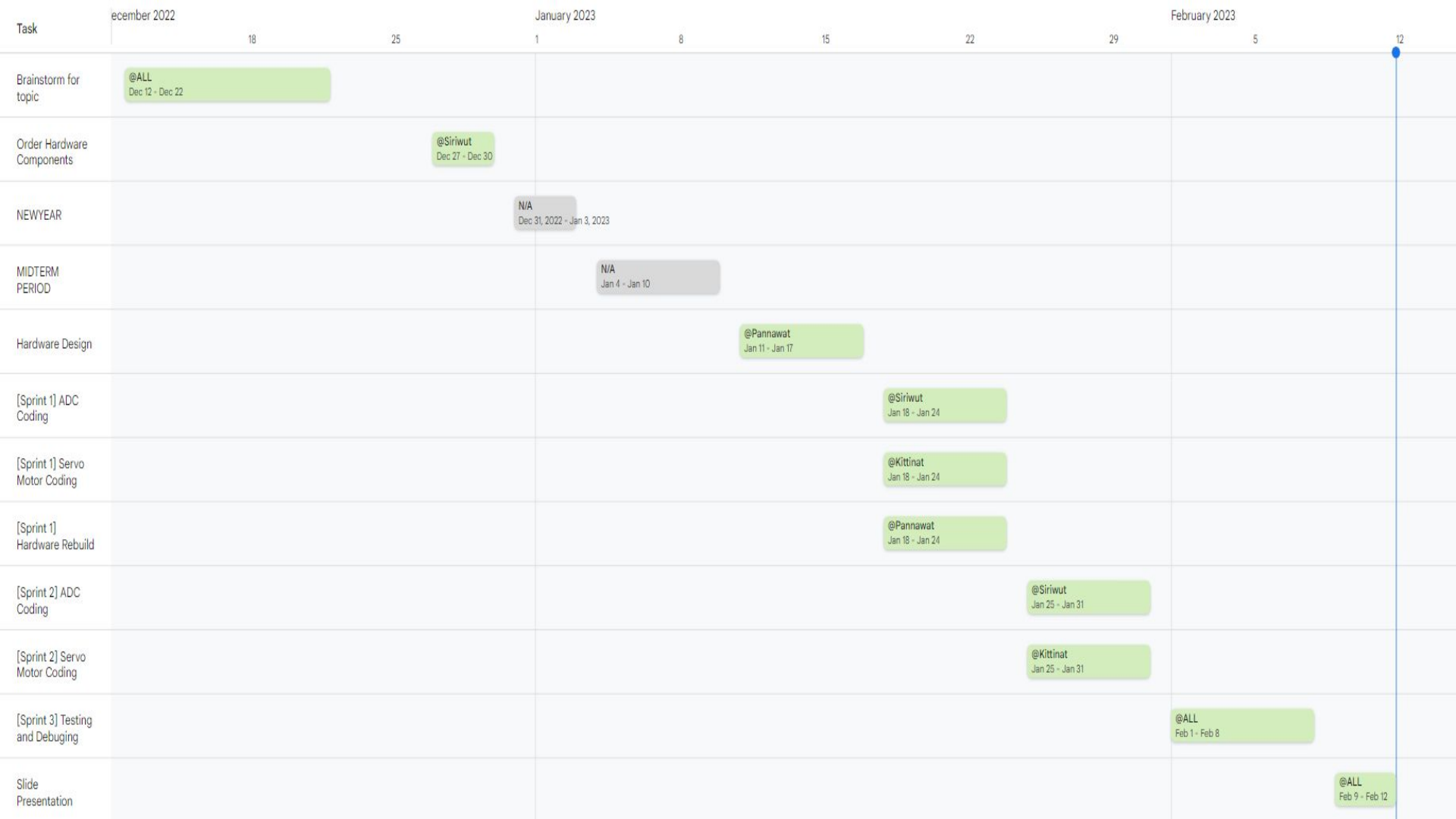


REQUIREMENT

สร้างระบบ Solar tracking ให้กับแผงโซลาร์เซลล์ โดยใช้บอร์ด STM32L152RB เป็นตัวควบคุม

SDLC - Agile

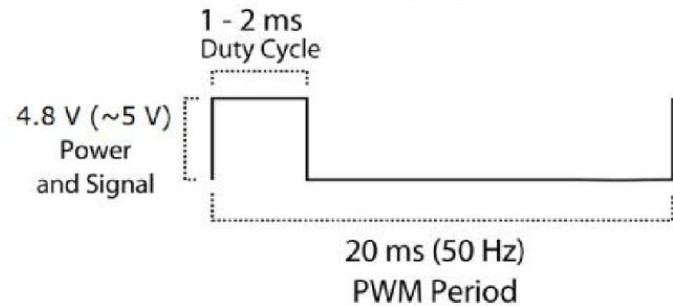




HARDWARE

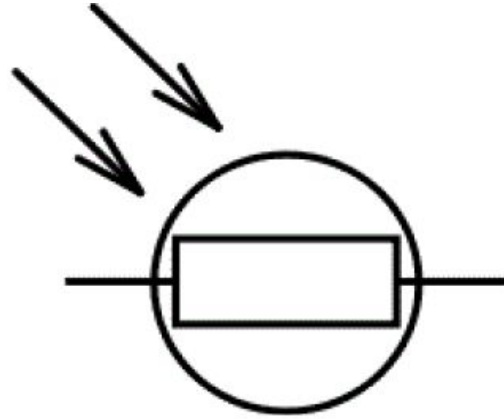


PWM=Orange (⌋⌋)
Vcc=Red (+)
Ground=Brown (-)



SG90 Servo Motor

HARDWARE



Photosensor (LDR)

BLOCK DIAGRAM



ADC



PWM



PIN ALLOCATION

\Pin Port	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A																
B																
C																
D																
H																



PA4 = ADC_IN4 (1st LDR)

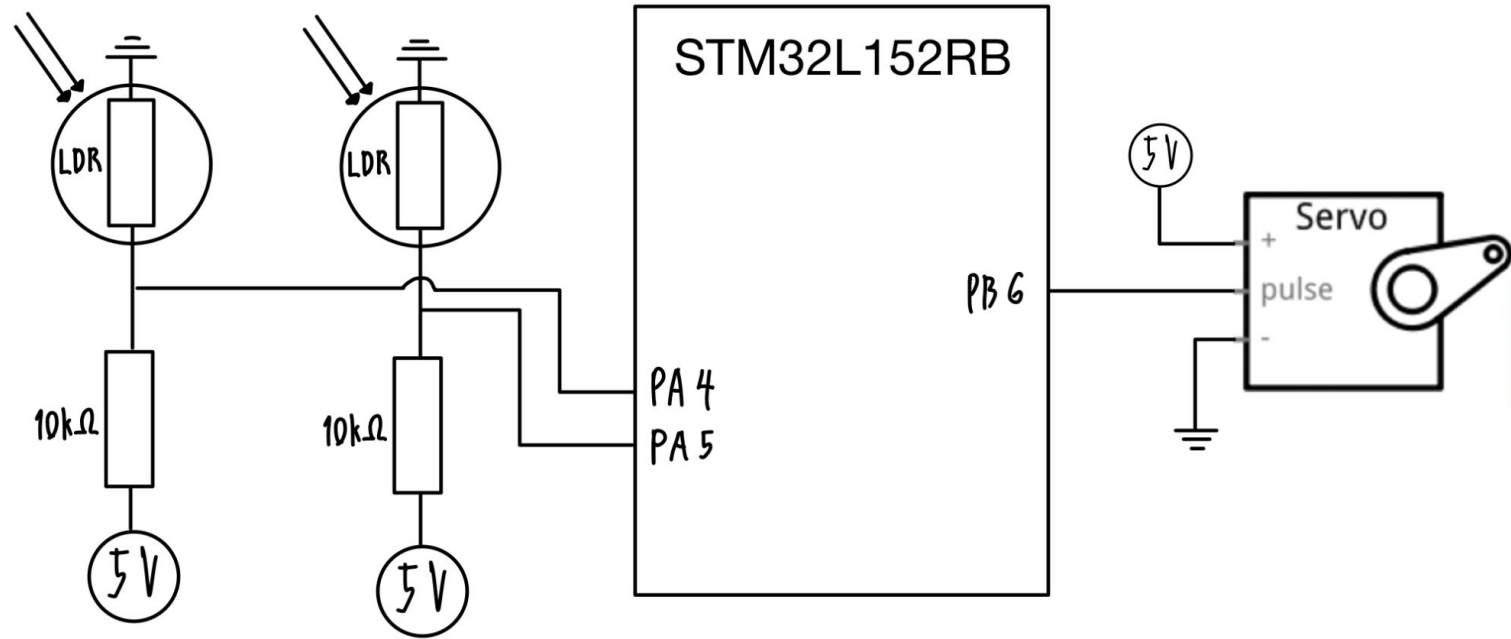


PA5 = ADC_IN5 (2nd LDR)

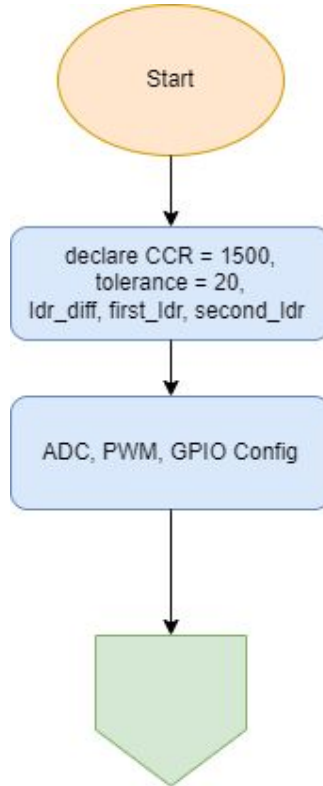


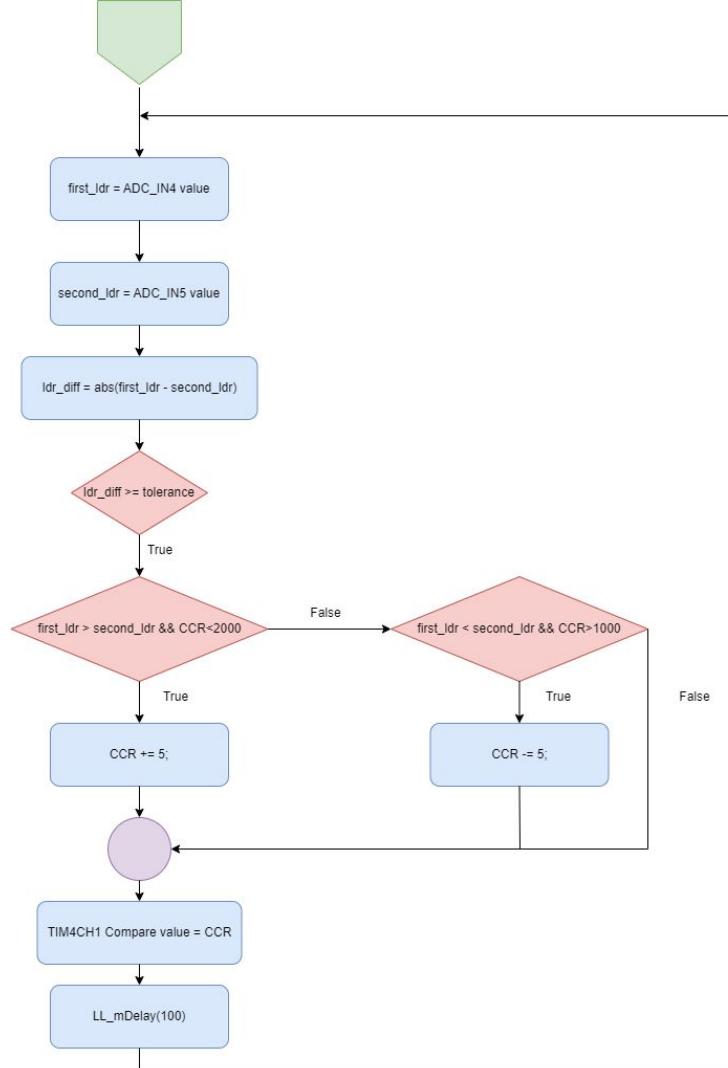
PB6 = TIM4_CH1 PWM OC (Servo Motor)

CIRCUIT DIAGRAM



FLOWCHART





DEMONSTRATION VIDEO



Thank
You