





#### **GROUP PGBM**

1	Kittinat Chaichanadee	2011310576
⊥.	Nittinat Chalchanadee	2011310370

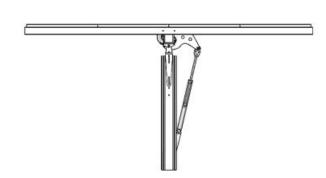
2.	Siriwut Thongmak	2011310840

3. Pannawat Benjas	up 2011311103
--------------------	---------------

4. Tana Manussiripen	2011311301
----------------------	------------

## **ABSTRACT**

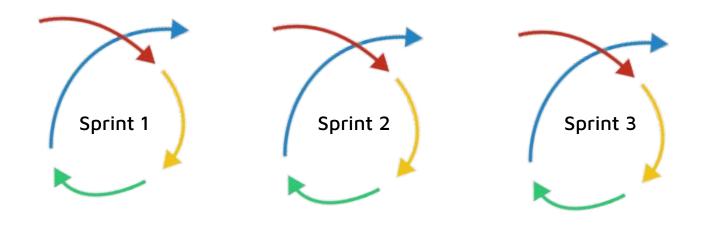




## REQUIREMENT

สร้างระบบ Solar tracking ให้กับแผงโซลาร์เซลล์ โดยใช้บอร์ด STM32L152RB เป็นตัวควบคุม

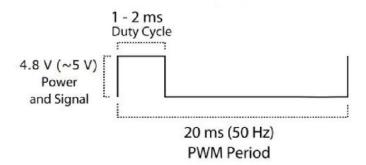
# SDLC - Agile



Tool	ecember 2022		January 2023				February 2023				
Task	18	25	1	8	15	22	29	5	1	12	
Brainstorm for topic	@ALL Dec 12 - Dec 22										
Order Hardware Components		@Siriwut Dec 27 - Dec 30									
NEWYEAR			N/A Dec 31, 2022 Jan 3, 2023								
MIDTERM PERIOD			<b>N/A</b> Jan 4 - Ja	in 10							
Hardware Design					@Pannawat Jan 11 - Jan 17						
[Sprint 1] ADC Coding						@Siriwut Jan 18 - Jan 24					
[Sprint 1] Servo Motor Coding						@Kittinat Jan 18 - Jan 24					
[Sprint 1] Hardware Rebuild						@Pannawat Jan 18 - Jan 24					
[Sprint 2] ADC Coding							@Siriwut Jan 25 - Jan 31				
[Sprint 2] Servo Motor Coding							@Kittinat Jan 25 - Jan 31				
[Sprint 3] Testing and Debuging								@ALL Feb 1 - Feb 8			
Slide Presentation									@ALL Feb 9 - Feb 12		

#### HARDWARE

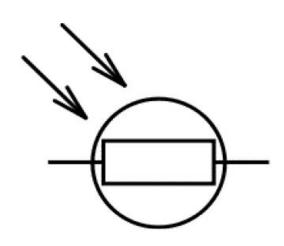




SG90 Servo Motor

#### **HARDWARE**





Photosensor (LDR)

#### **BLOCK DIAGRAM**















#### PIN ALLOCATION

\Pin Port	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Α			9						S.		6.0					
В																
С																
D																
Н																



 $PA4 = ADC_IN4 (1st LDR)$ 

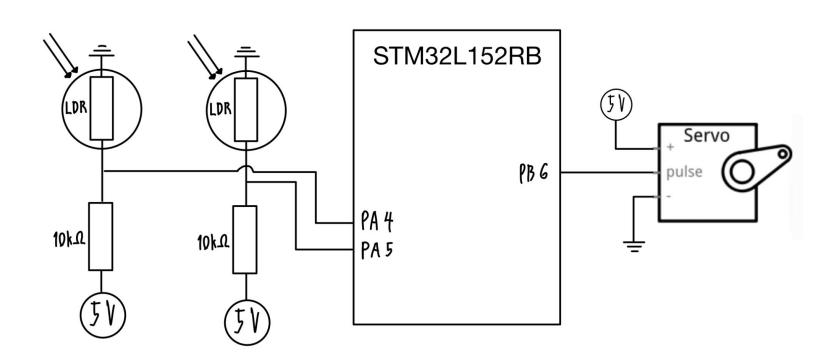


 $PA5 = ADC_IN5 (2nd LDR)$ 

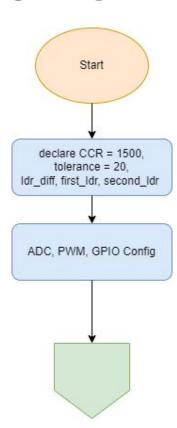


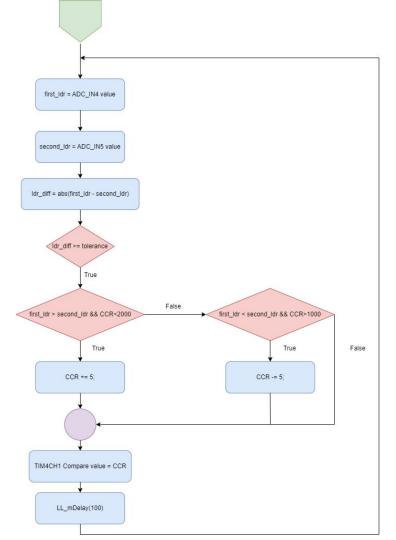
PB6 = TIM4\_CH1 PWM OC (Servo Motor)

#### **CIRCUIT DIAGRAM**



#### **FLOWCHART**





# DEMONSTRATION VIDEO

