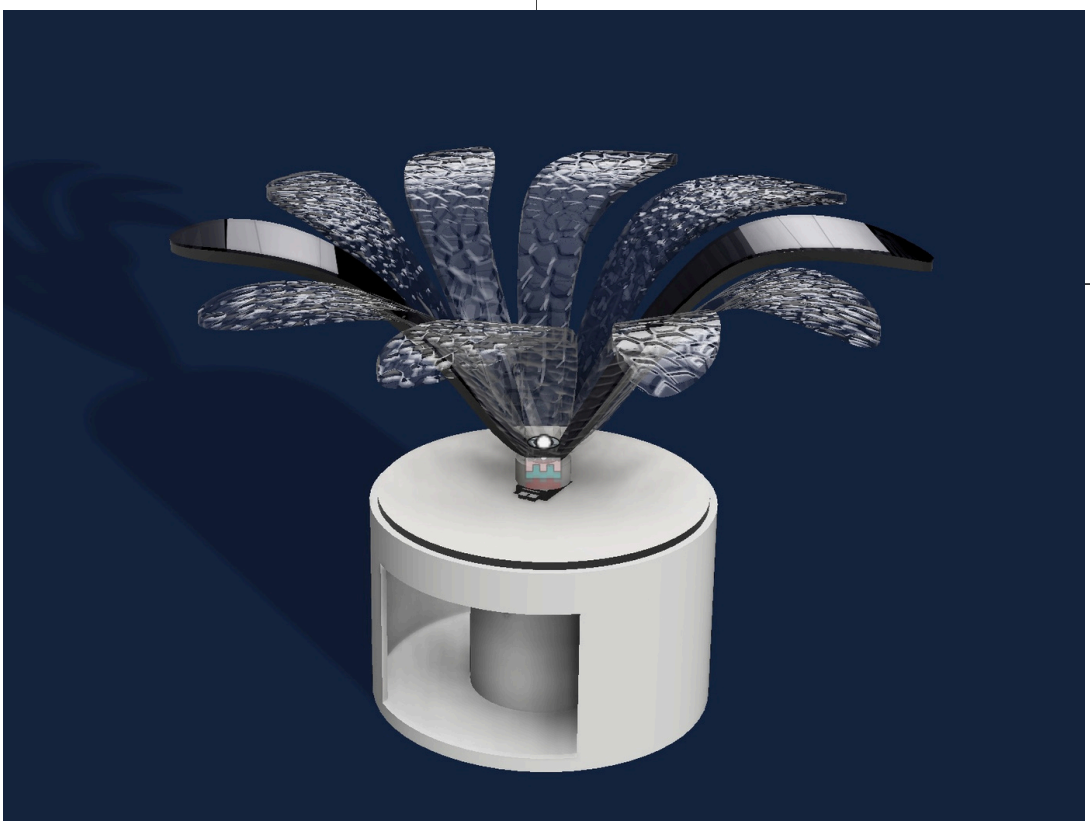
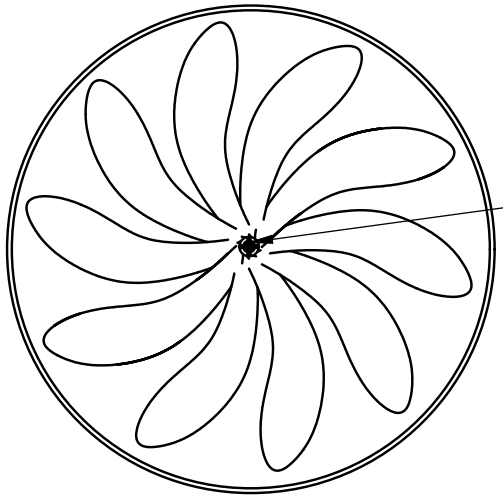
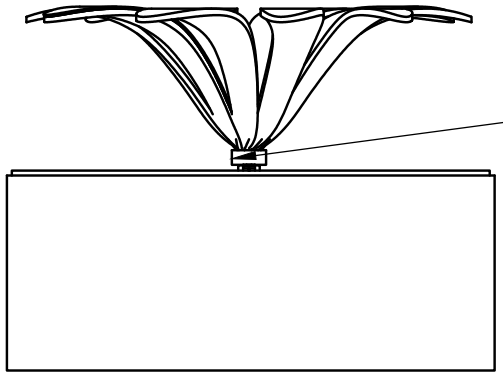


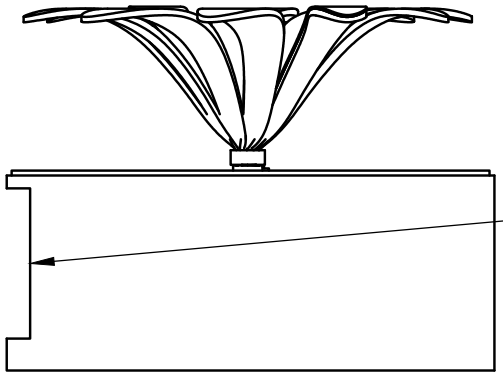
SOLAR GARDEN LIGHT DESIGN



LED apertures and LDR sensor ports
(glass petal diffusers)

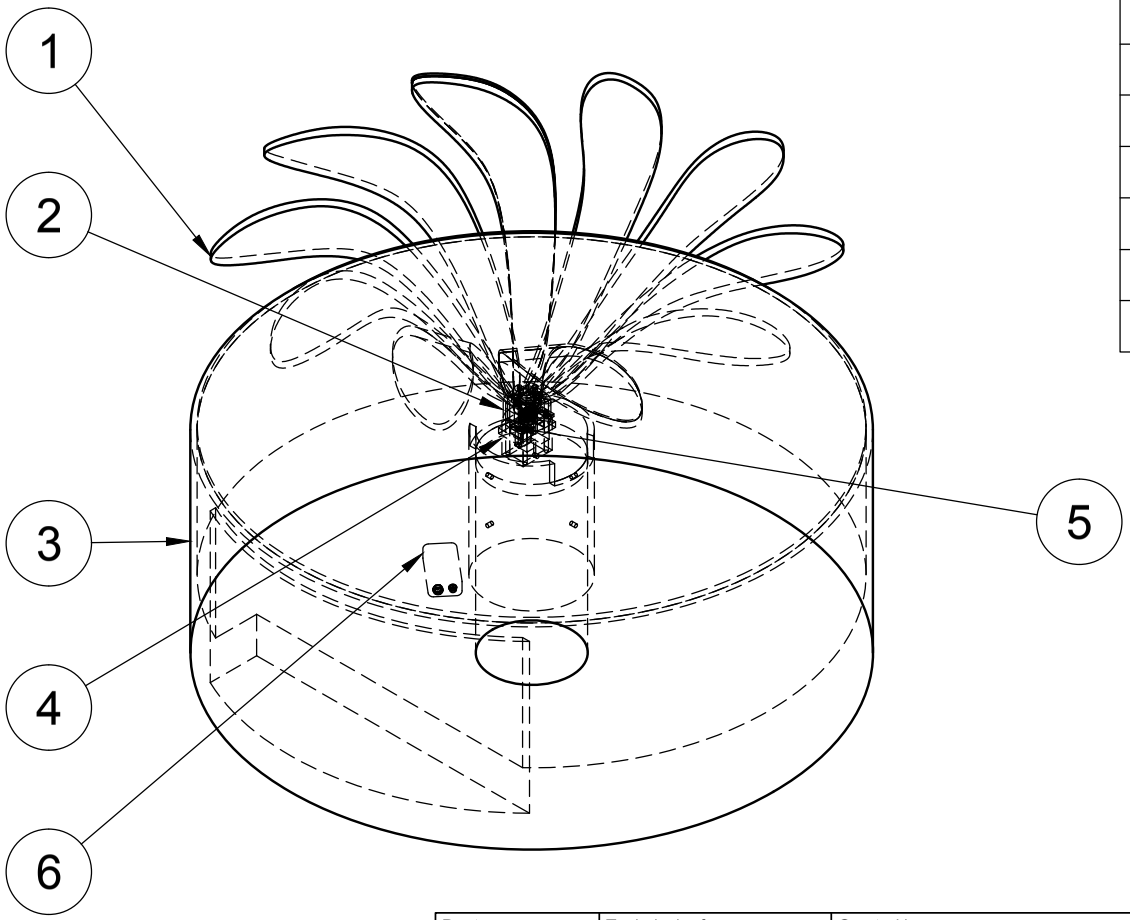


Rotating hub mounted on
servo motor connected to
battery and control PCB.



Access door to
electronics

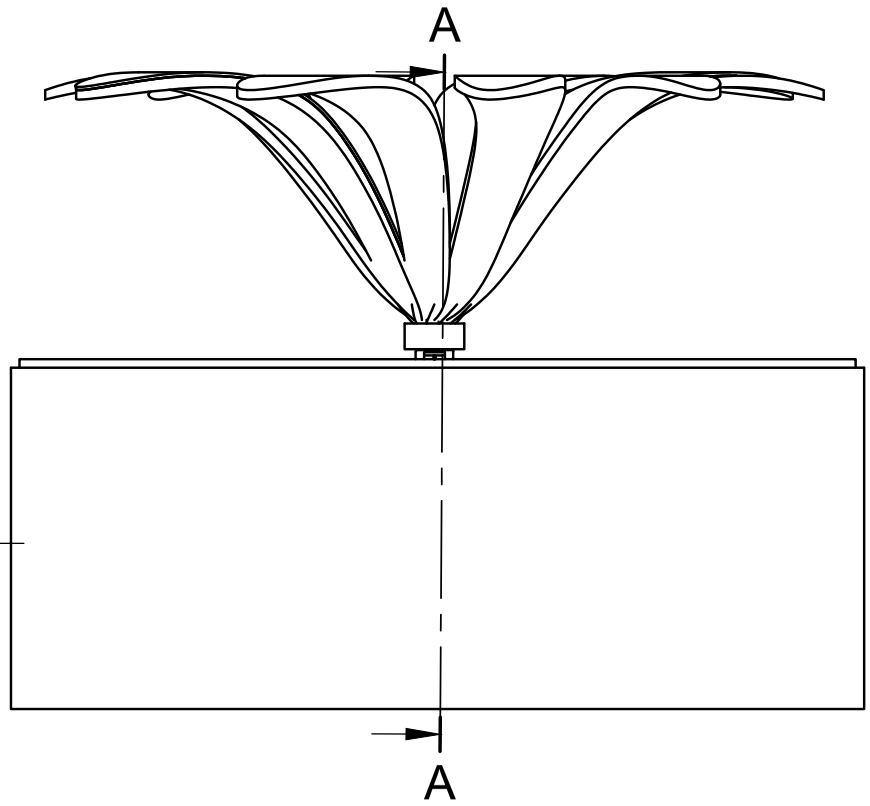
Dept.	Technical reference	Created by Gloria Kirivita 15/12/2025	Approved by
		Document type	Document status
		Title 3rd Angle Projection	DWG No. 1/4
			Rev. / Date of issue / Sheet 1/1

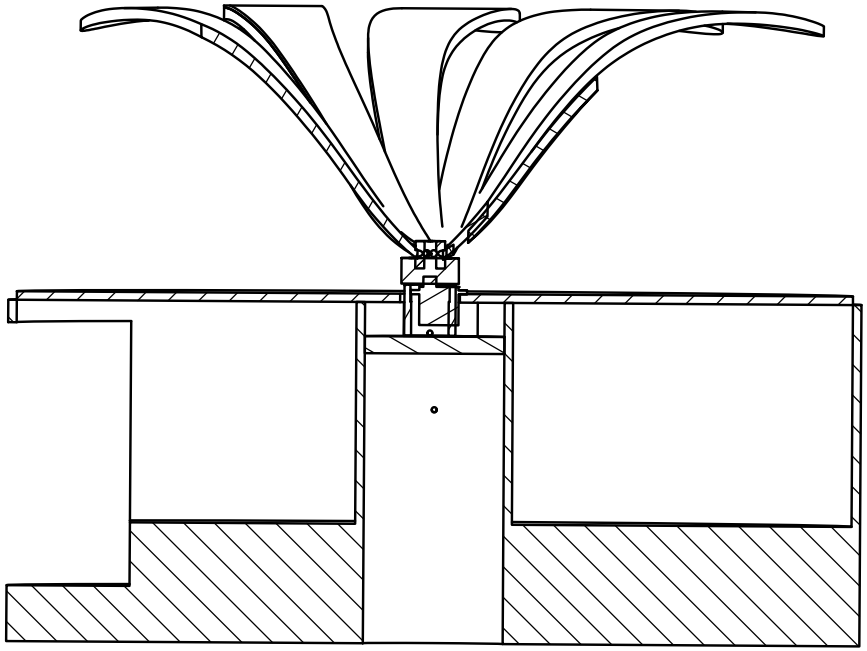


Parts List		
Item	Qty	Part Number
1	1	PETALS
2	1	Rotating Hub
3	1	Battery box
4	1	Servo housing
5	1	Servo motor
6	1	Battery

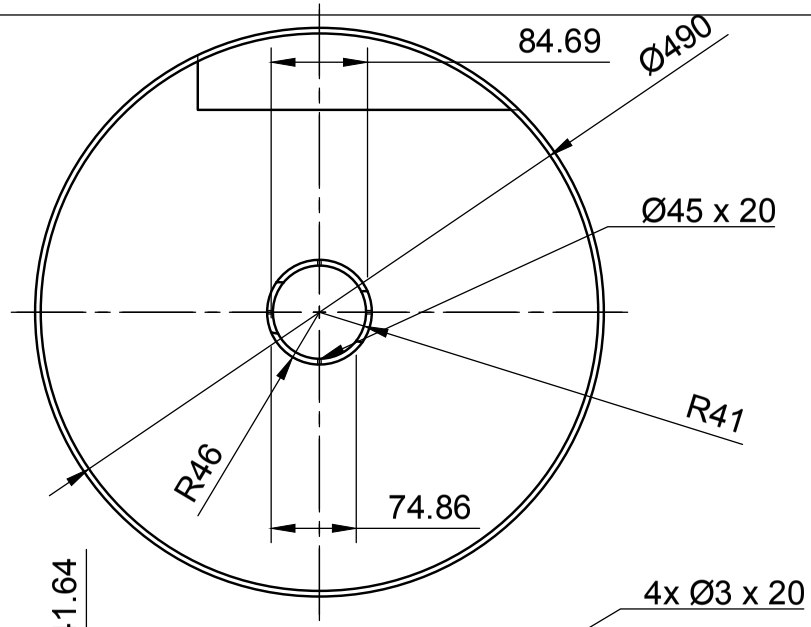
Dept.	Technical reference	Created by Gloria Kirivita 15/12/2025	Approved by
		Document type	Document status
		Title: Isometric View	DWG No.: 2/4
			Rev. / Date of issue / Sheet: 1/1

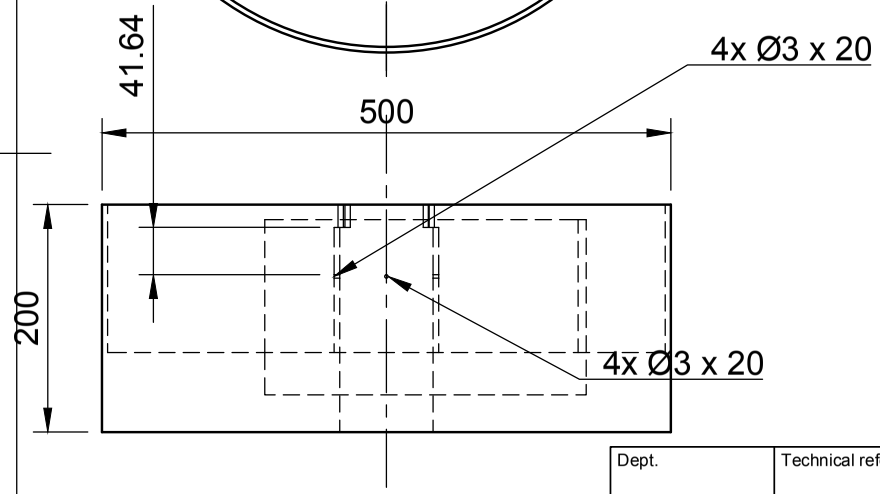
A-A (1:4)





Dept.	Technical reference	Created by Gloria Kirivita 15/12/2025	Approved by
		Document type	Document status
		Title Sectional view	DWG No. 3/4
			Rev. / Date of issue / Sheet 1/1

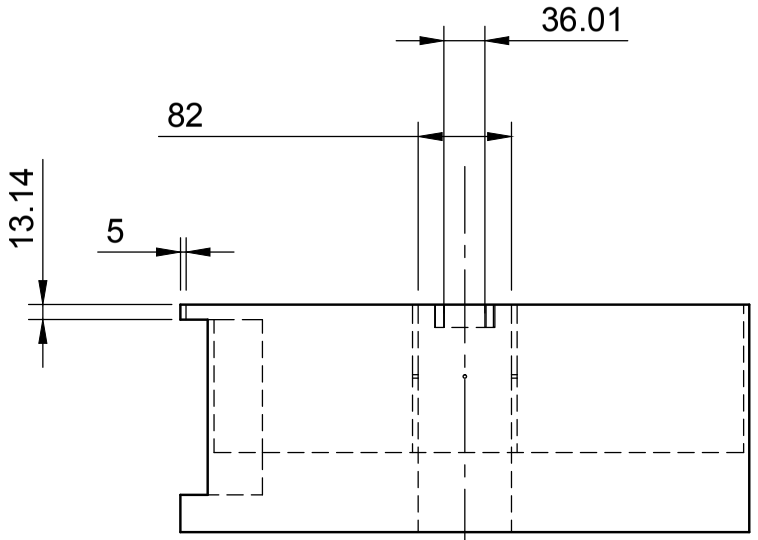




Battery Compartment Drawing(Casing)

Material: Recycled ABS plastic

All dimensions are in mm and compliant with assignment brief.



Dept.	Technical reference	Created by Gloria Kirivita 15/12/2025	Approved by
		Document type	Document status
		Title: Detailed casing view	DWG No.: 4/4
			Rev. / Date of issue / Sheet: 1/1

Sustainability Statement

This design promotes clean energy by using a solar powered system that functions independently from the electrical grid, reducing energy consumption and related carbon emissions. Light dependent resistors (LDRs) are used to detect sunlight intensity and orientation, allowing the system to adjust its position to maximize solar exposure efficiently without needing extra energy. The product is made with recyclable plastic materials suitable for outdoor environments, offering durability, weather resistance, and minimal material waste. Its modular construction enables individual components such as the petals, rotating hub, sensors, or servo motor to be repaired or replaced without discarding the entire product. The design extends product lifespan through simple mechanical motion, protected internal components, and low electronic complexity. When it reaches the end of its life, the design allows for easy disassembly, making it possible to separate electronic and structural components for recycling and responsible disposal.