

# Solar panels cleaner

**By:**

**Dana Shami  
Haneen Ibraheem**

**supervisor:**

**Dr. Sufyan Samara**



# Outlines



**what is solar panel cleaner ?**

**Motivations**

**Features**

**Future work**

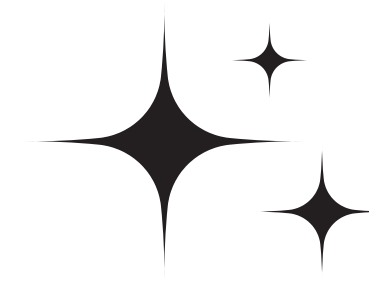
**Constraints**

**components**

# **What is solar panel cleaner ?**

**Is a robot to automatically clean the surfaces of solar panels, as  
it is able to operate  
the pump and brush as well as move on multiple panels with a  
certain angle of inclination.**

# Motivations

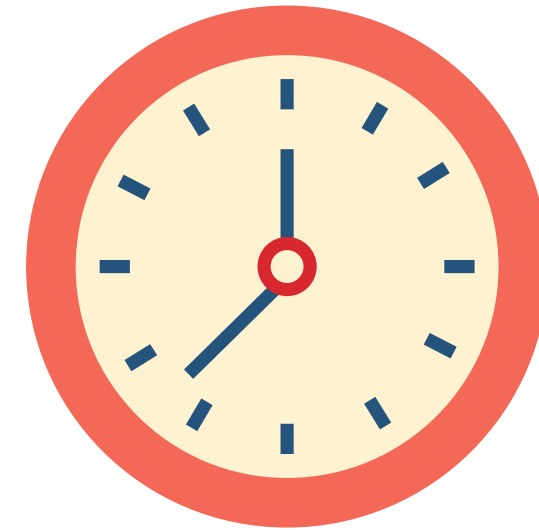
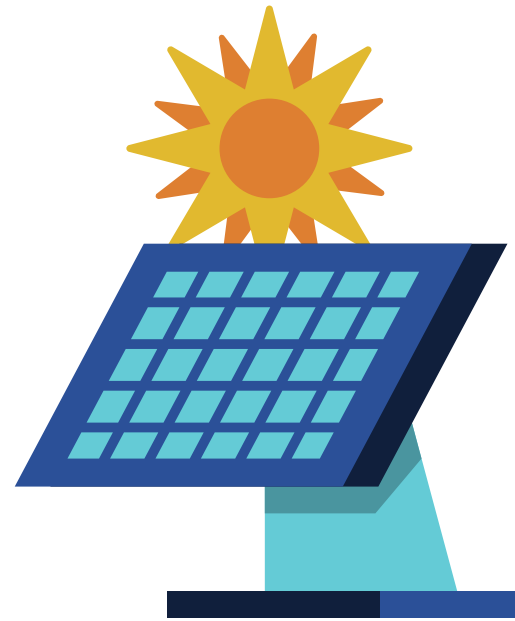


why solar panel cleaner

**The world is moving towards solar energy to generate electricity, and the Solar Energy**

**Association notes that dirty solar panels can lose 20% of their energy production. Clean solar photovoltaic panels ensure optimal performance. So, the solution is solar panel cleaning robot**

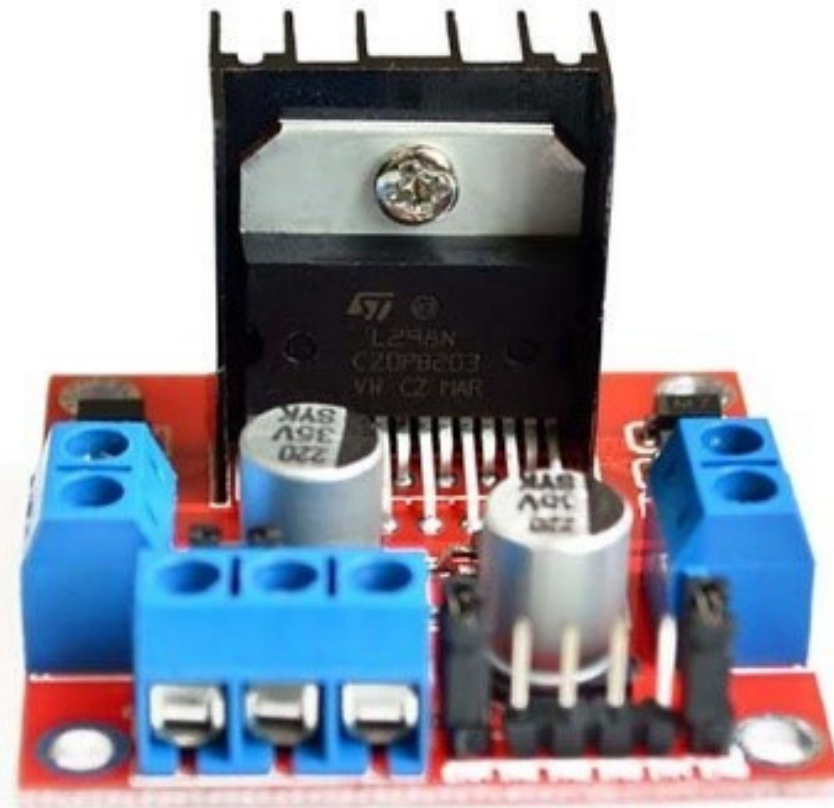
# Features



# Components



# Components



# Components



# Components





# Components



# Components



# Components

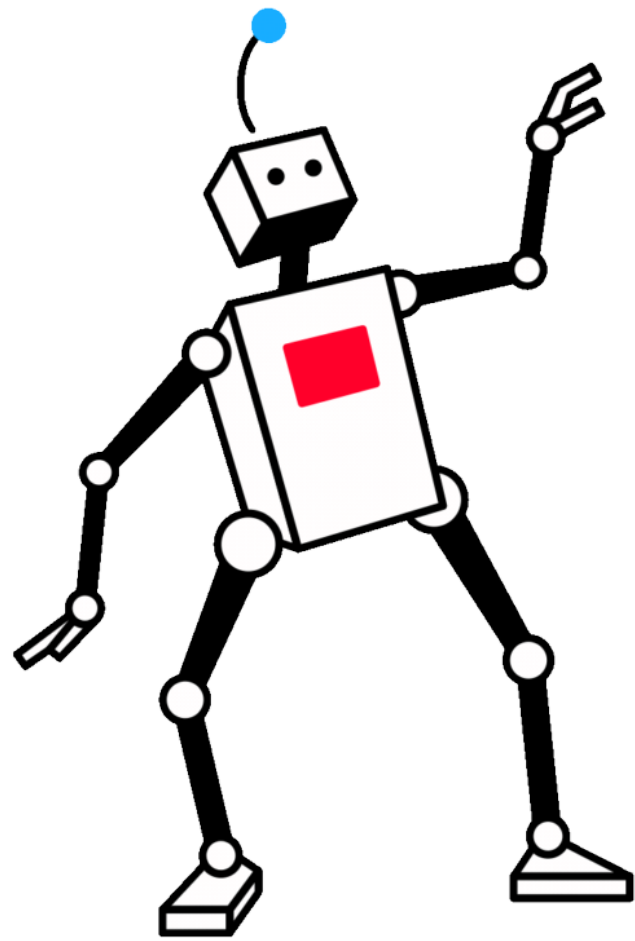


# Components

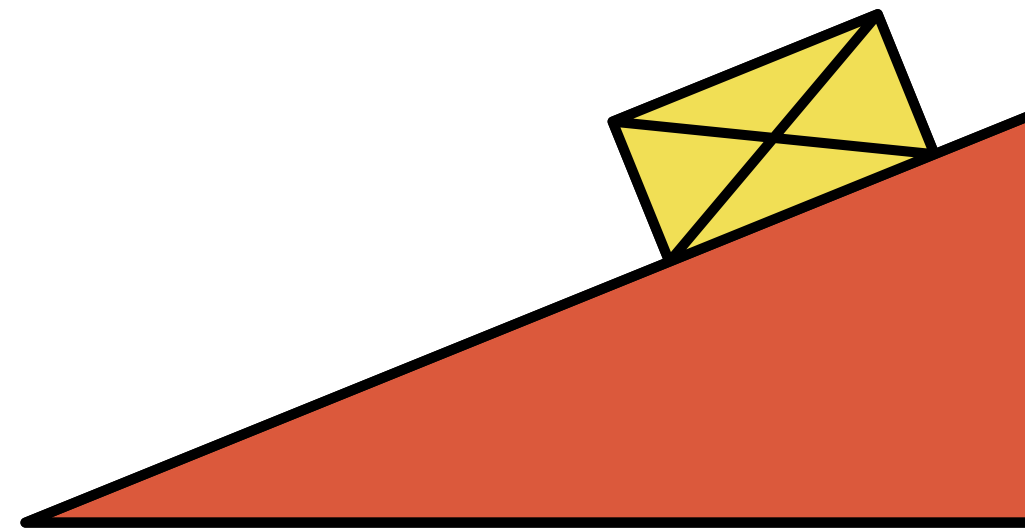


# Constraints ✨

**Unstable**



**inclined surface**



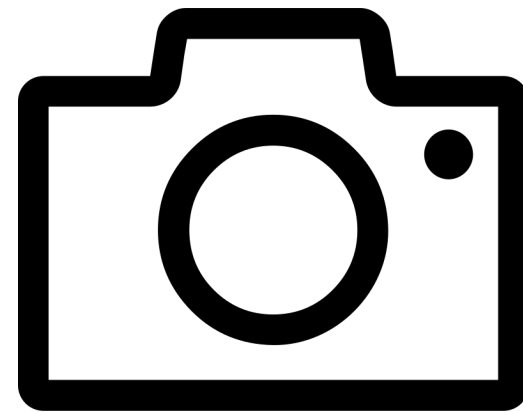
**wifi unstable**



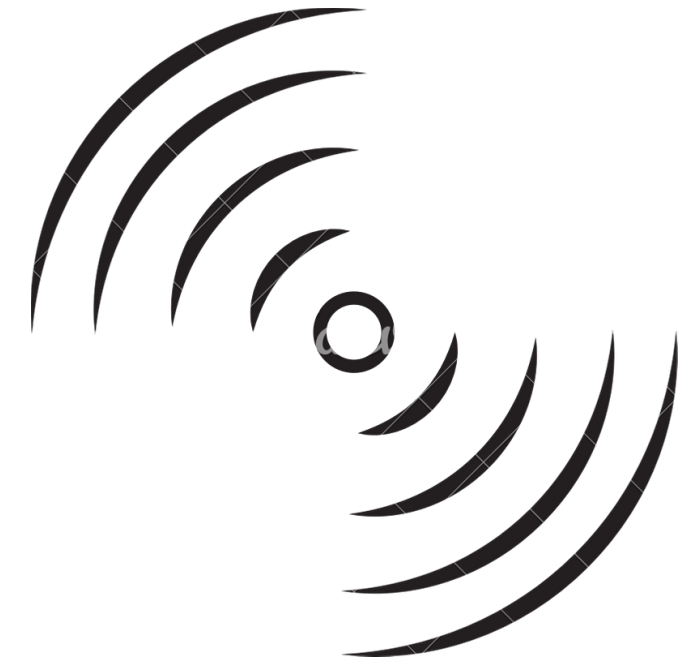
# Future work



**Notifications**



**camera**



**shaft encoder**