

Brochure Robot

Mechanical Movement Analysis

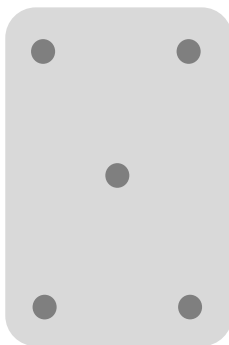
Smart Methods Summer 2020 Internship

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Palm Analysis

A palm with a rectangular design, supplied with light vacuum grippers to pull and distribute brochure papers to costumers. The number of grippers can be minimized to one vacuum gripper per palm, as the brochure paper weight is very light. However, five grippers will be used for this design.

There are two types of vacuum grippers to be selected for this robot. The first type is the normal one, such as in figure 1 where multiple gripper designs are provided. The second type is the carbon vacuum gripper such as in figure 2.



Palm Top view



figure 1: Vacuum grippers designs



figure 2: Carbon vacuum grippers ([link](#))

Connectors and Joint Analysis:

The mechanical arm will contain three connectors with different rotations in order to obtain a humanoid robotic arm movement. According to figure 3, the connectors will use two types of motors to obtain the desired movements.

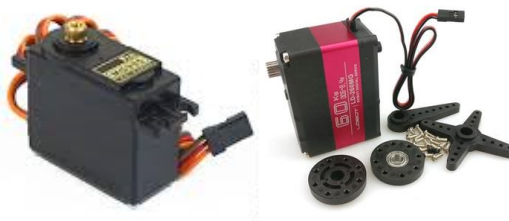


figure 3: mg995 and LD-269MG