***Grabbing the object*:**

For this problem we have multiple proposed solutions. Among them we have:

\* Mechanical grabber hand,

\* Electro-adhesion solution as mentioned in reference [1],

\* Suction cup contacts,

\* For ferromagnetic materials, electro-magnetic connector.

**Problems:**

Proper positioning for grabbing mechanism, releasing the objects in case of suction cup solution...

**Solution:**

Pre-requisite: Ultrasound 3D scanner will provide the information about the shape.

When close enough to the object (described in section “***Locating the payload object***”), drone will activate camera and query database for image/shape recognition for the target RfId. This will help drone to retrieve the best strategy of how to grab the object, whose orientation and relative position we can calculate by applying some of the image/shape recognition algorithms available. All the image data about the object can be stored in the image knowledge database (data in this database could be photos of the object and rfId can be the key). The information about the shape could be integral part of the database (with RFID code as a key). This computer vision algorithm can recognize the target and do corrections of grabber hand position, so the grabbing process will be faster and more successful.

***References:***

[1] <https://www.youtube.com/watch?v=RiAiNjd6ukk>