

## POSSIBLE systems for shooting:

### 1: System of rotating Camera

Most practical for human subjects, including standing poses. The camera height should be adjustable or an adjustable platform will have to be used. The camera should be mounted at the minimum zoom position, where focus can be achieved. **The distance of the camera to the center of the cardboard should be measured precisely and given to us with the video as a parameter.**

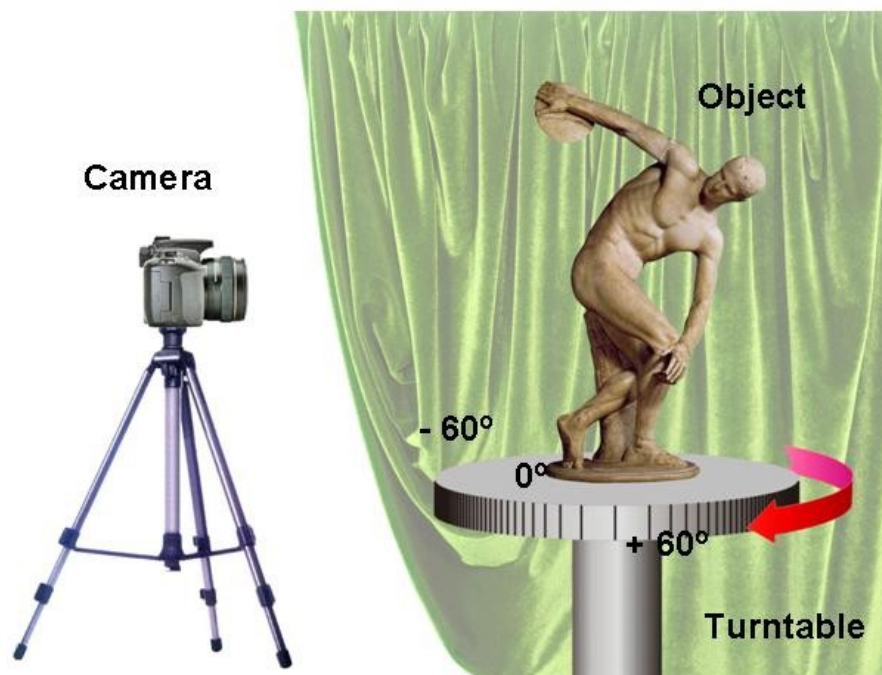
**For example: For the Canon HF200 this distance is 120cm.**

### 2: System of rotating Object

For smaller objects or those requiring macro zoom, a rotating platform is the best choice. Typically too heavy objects can not be used, as the motor will turn slower or possibly be damaged. All other criteria specified for rotating Camera can be leveraged, with a different zoom setting and a stable tripod for the camera. As before the center of the object should be adjust at the center of the Camera lens (and of the rotating system) . A cardboard target must be used as before to adjust the zoom of the camera, so the image will be adjusted for the future 3DHoloprint. An adjustable speed of the rotating system is necessary, to match the 192 images/120° of rotation. **The distance of the camera to the center of the cardboard should be measured precisely and given to us with the video as a parameter**

**For example:**

## Capture of objects on turntable support



### 3: The use of a photo camera

In some cases (big building...) the use of a video camera is not possible. In that case it can be substituted to a normal camera. The rotation should be carefully done:

-select what will be the center of the hologram (for example the front door of the building). Attach a link to it and now move back to the acceptable distance so the camera can photograph all the subject (+20%).

-you will move around the building, keeping the correct distance with the help of this link and a second one (see below). Every photography should be always centered on the same point.

**-The distance of the camera to the center of object should be measured precisely and given to us with the photos as a parameter**

#### CAMERA PREPARATION

-display a markers level on the screen of your camera to be able to center the image always on the same point.

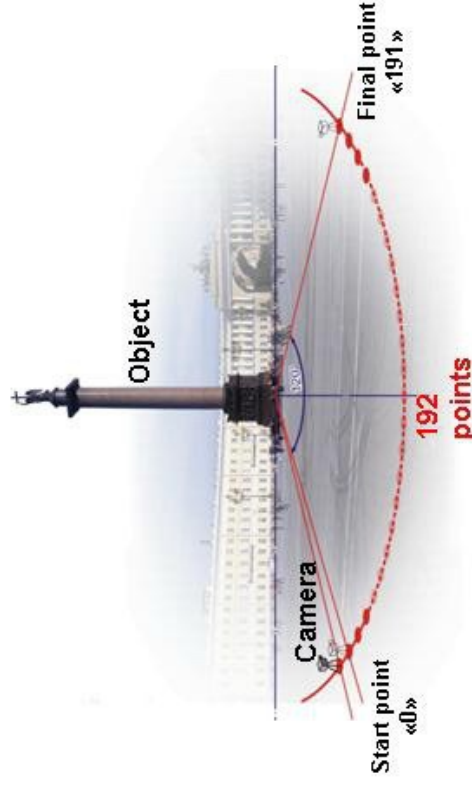
-orientate the camera to maximize resolution capture

-use manual focus. Focus one time only, facing the object (on the circle)

- zoom one time only, facing the object (on the circle): add +20% (+10% on right and 10% left) on the final hologram picture you want.
- Shoot the image and rotate the object  $1/192$  of  $120^\circ$  . If the object can not be rotated, use the 192 shoots technique:(see picture **Capture of big objects** next page)

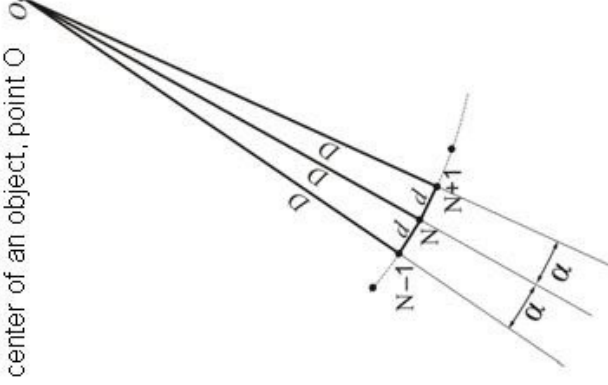
# Capture of big objects

## Scheme of shooting



## Marking scheme

Fixed attachment in the center of an object, point O



## Procedure of marking

1. Make two template cords of  $D$  and  $d$  length
2. Fix the cord  $D$  on an object and second cord end on the ground – this is the point  $N$  for camera shooting
- 3 To mark points  $N-1$  and  $N+1$  fix the template cord  $d$  on point  $N$  and match the second end to left and to right with the end of cord  $D$ , it gives points  $N-1$  and  $N+1$  . 4. Mark 192 points and make 192 shots according instructions.

$D$  – distance between object and camera

$d$  – distance between points

$d = \alpha D$ ,  $\alpha = 120^\circ / 191 = 0,011$  rad

Example: if  $D = 10$  m,  $d = 11$  cm