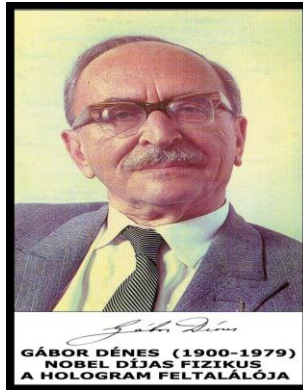




HOLOGRAM:

From the Greek roots: „holos” meaning whole and „gram” meaning message. The Hungarian physicist Dennis Gabor (Hungarian name: Gábor Dénes) was awarded the Nobel Prize in Physics in 1971 "for his invention and development of the holographic method".



Just as a conventional photograph is a record of focussed light reflected from an object, holography is a three dimensional imaging technique using powerful laser and requiring far more exacting conditions than photography.

To create a hologram, the laser light is split into two beams:

one illuminates the object being shot and one illuminates the film plate onto which the hologram will be recorded. When the object to the film plate a microscopic interference pattern is formed of light and dark places, which, when re-illuminated properly will „reconstruct” a three dimensional image of the object. An embossed hologram is created by transferring the relief pattern onto plastic film.

WHAT TYPES OF HOLOGRAMS ARE AVAILABLE?

1. 3D these holograms are made from three dimensional, same size models and display a fascinating combination of depth, colour and motion effects
2. 2D these holograms are made from flat artwork and exhibit rainbow colours in all lighting conditions
3. 3D/2D these are made from both 3D models and graphic artwork, the result being a „solid” image with bright, flat elements which are viewable in all lighting conditions
4. 2D/3D these holograms are also made from flat artwork, but foreground and background separately so that they have depth and motion as well as rainbow colours and are very easy to see in all lighting conditions
5. STEREOGRAMS the basis for a stereogram is a length of movie film, which is shot under our direction. This technique enables us to make holograms of people and animals, and large objects. The stereogram can also show a certain amount of movement.



HOW TO LIGHT YOUR HOLOGRAM

Your hologram is designed to be illuminated from the front. There are four main issues to consider when lighting your hologram to ensure that you get the brightest and sharpest image possible.

1. **THE LIGHT SOURCE** - The sharpest and brightest image is obtained using a clear point like source of light. Highly recommended are the many types of low voltage halogen spot lights now widely available in high street outlets. They provide an efficient and economical method of hologram illumination and give exceptional image quality.

2. **POSITION OF LIGHT SOURCE** – The lightsource should not be positioned too closely to the hologram because this may result in an unsharp image. Try to place the spot light as least 1.2 meters /4 ft from the hologram. Because of the necessity of using a 45° illumination angle this distance will depend primarily on the ceiling height.

3. **ANGLE OF LIGHT SOURCE** – The light must strike the hologram at an angle of approximately 45°. The simplest way of finding out where to place the light source having already decided on possible site is to measure the distance from the mid point of the hologram to the ceiling and then measure the same distance from the wall out onto ceiling. Placing a light at this point will give you the required illumination angle of 45°-see the lighting diagram.

4. **POSSIBLE INTERFERENCE** –Care must be taken when choosing where to display the hologram. If another light source falls on the hologram, perhaps from nearby window, or from existing lights in the room multiple images may be formed that interfere with the desired display.

With these considerations in mind, the best place to install your hologram would be on an internal wall that receives no direct sunlight, at a comfortable viewing height and with sufficient ceiling height to give the necessary illumination angle and distance. Don't be put off by these instructions, lighting a hologram is not difficult and with a little care you can achieve a stunning result.

CARE OF YOUR HOLOGRAM

Treat a hologram as you would a photograph or painting. Do not expose the hologram to direct sunlight, especially if only partially shaded as Damage can occur. On no account spill any liquid onto the back of the hologram.

GLASS HOLOGRAMS smears and fingerprints can be removed from the front of a glass hologram with a non-smear domestic glass cleaner and a soft cloth.

FILM HOLOGRAMS try not to touch the surface of a film hologram. The film will be scratched if cleaned in the usual way. Dust can be removed gently with a soft cloth.

FARMING YOUR HOLOGRAM

Your glass hologram can be framed in conventional manner for display. If you have a film hologram it may already be mounted in a black cardboard window mount. Simply buy frame to accept the overall size of the window mount or hand the hologram to your local frame shop with appropriate instructions.

As an experiment try viewing your hologram under different light sources. Car headlights, torches and even the moon make for interesting sources of illumination. If you live in a street with orange sodium street lamps and have an orange hologram you can use the street lamp to illuminate the hologram. You will see an exceptionally sharp and lifelike image due to the pure colour of the light.

