



Laser Type: Argon-Ion  
Laser Output:  
1.2 watts @ 480 nm.  
Film Type: DCG  
(Dichromated Gelatin)  
Film Thickness: 2-5  $\mu$   
Reference Beam  
Angle to Film: 38°-45°  
Exposure Time:  
10-45 s.  
Sculpture/Image  
Ratio: 1:1

## Quiz 10: Holography

1. How long does the laser need to warm up? Why?  
**FIVE MINUTES. THIS WILL MAKE SURE THAT THE LASER OUTPUT MAINTAINS A CONSTANT FREQUENCY.**
2. The manual suggests silver coins as good subjects for your first hologram. Why?  
**SUBJECT SHOULD BE HARD, NON-DEFORMING, AND REFLECTIVE. SOFT SUBJECTS ARE INAPPROPRIATE BECAUSE THEY MAY DEFORM DURING EXPOSURE.**
3. How long does the holographic plate need to be exposed to the laser?  
**EXPOSURE = 10 SECONDS (APPROX)**
4. Your stock solutions are labeled Part A, Part B, and Bleach. What combination and in what proportion do you mix these to make the Developer?  
**50% PART A + 50% PART B = DEVELOPER**
5. Your finished first hologram is foggy or streaky. What will you do with your second plate to try to correct this problem?  
**MAKE SURE TO PROCESS THE PLATE WITH SUFFICIENT TIME AT EACH STEP.  
RINSE PLATE LONGER BETWEEN DEVELOPER AND BLEACH STEP.  
MAKE SURE WETTING SOLUTION IS APPLIED EVENLY.  
DRY VERTICALLY TO MINIMIZE DRIPS THAT MAKE STREAKS.**

