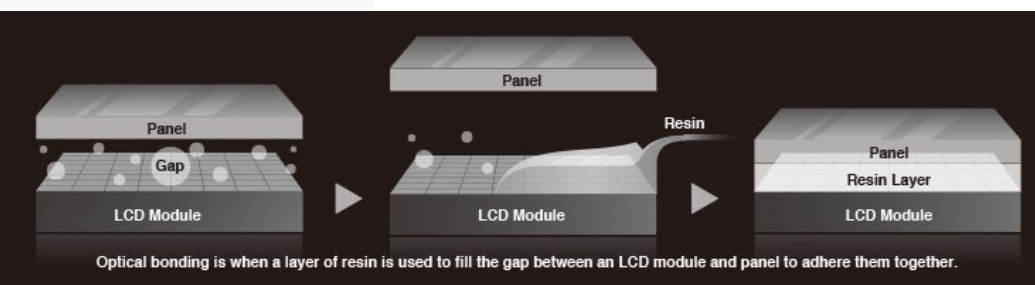


# Task Research Project

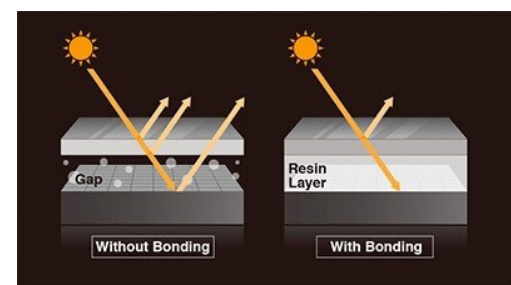
## Optical Bonding

**Mission:** *Propose a technique for the lamination of an optically bonded display with a minimal amount of air pockets between the layers.*

**Background:** Optical bonding is a type of assembly of regular or touch-enabled LCD screens with a protective layer. Its main advantages over air bonding are the increased stress resistance of the finished product and better optical performance due to less refraction between the layers.

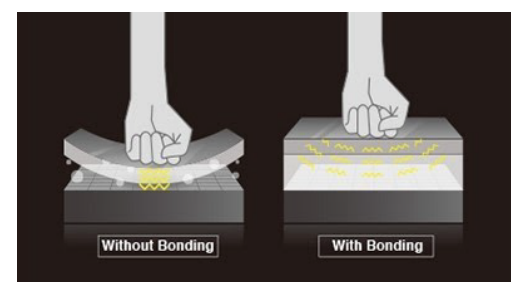


Note: above illustration shows a liquid resin; you will be working with a solid material



**Objective:** Propose a technique for the assembly of a three-layer structure:

- protective glass
- solid OCA (optically clear adhesive)
- LCD (liquid crystal display)



The desired outcome is a process for bonding that binds all three layers with as few as possible (or none at all) pockets of air.

Limit yourself to **one A4 page** – this is meant to be an idea/concept, not a full solution.

**Pay attention to:**

- Complexity and reliability
- Ability to be automated
- Footprint of machine/setup
- Air pocket prevention