

The chosen application for this mask design is a simple flat, laminar flow channel, with three optic sensors placed at regular intervals along one sidewall of the channel. The design consists of four separate masks, with flexibility being lent to the channel design. The design process is as follows:

1. The waveguides and their cladding are layered on the flat wafer, utilizing the *waveguide mask*.
2. The channel is then patterned, allowing the sensing ends of the waveguides to terminate at the channel inside wall, thus using the *channel mask*.
3. The interfaces for the fiber-to-planar optic connections are then patterned, in this case as a simple butt coupling. This step uses the *waveguide interface mask*.
4. Finally, the covering plate for the channel has the input/output ports etched into it, thus using the last *channel ports mask*.

The relationship of these four masks is illustrated below, and the subsequent construction of each would be referenced using appropriate marks.

