

Blood Inlet, external pump will be used

Plasma separation
via bifurcation
will occur here

B

Blood inlet, external pump
will be used

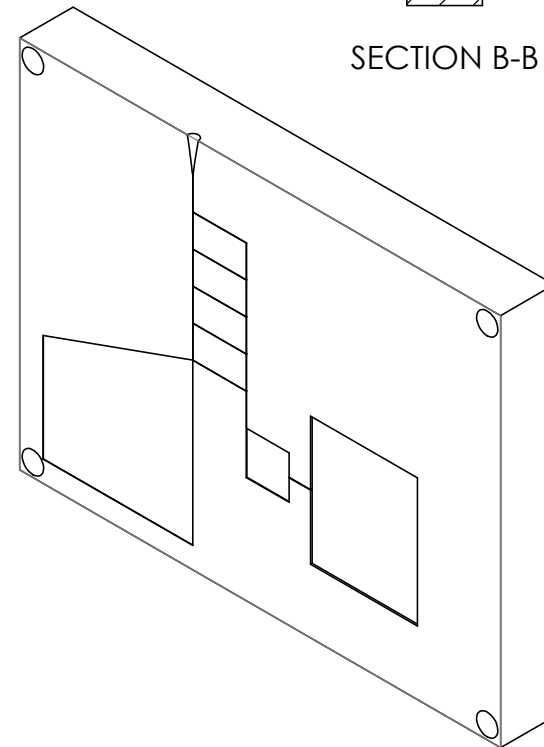
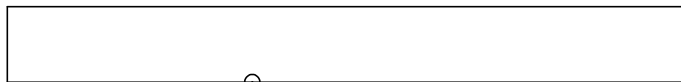
Plasma will gather here before
being manually pumped into the
detection chamber

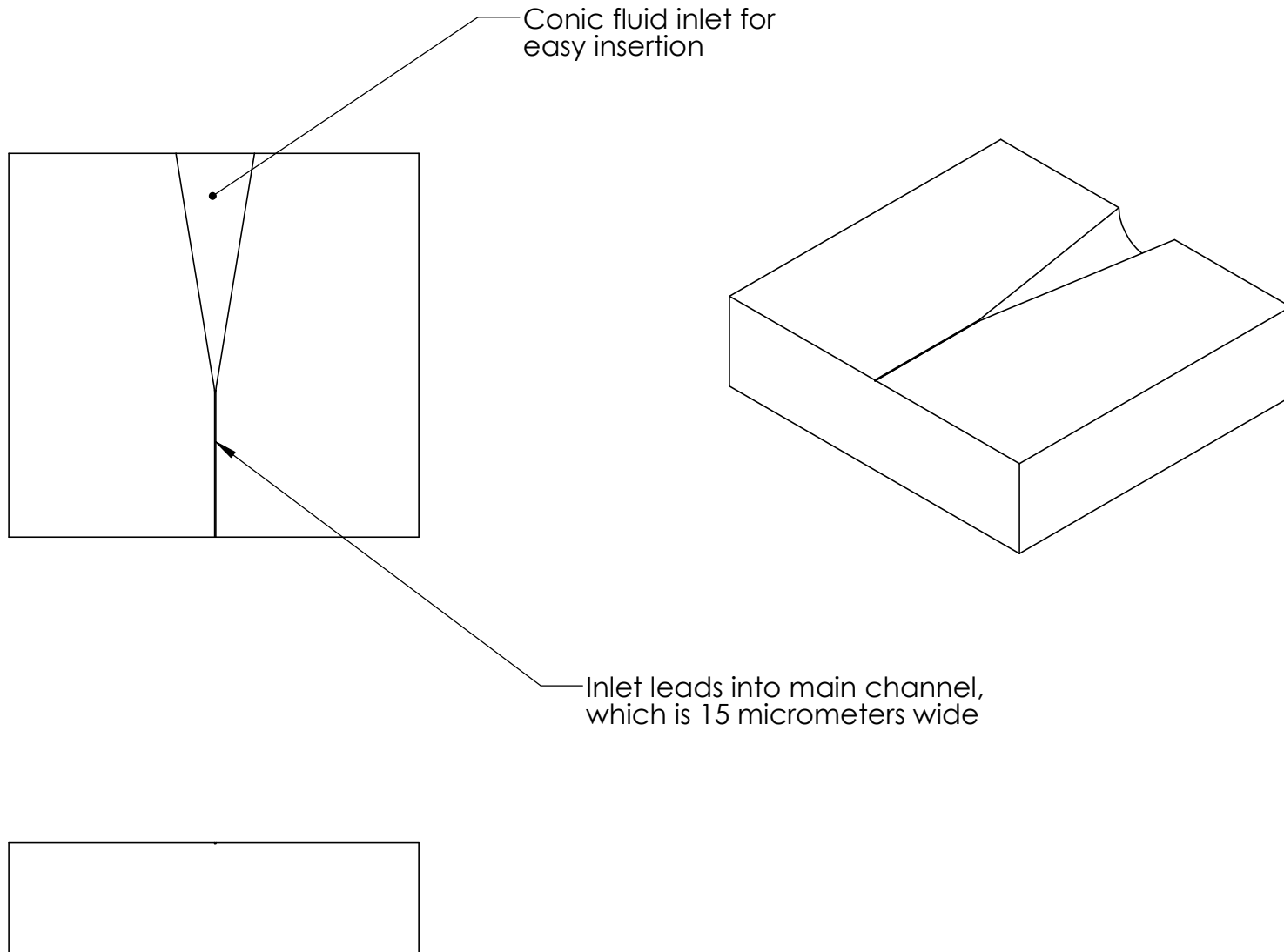
Gold nanoparticles
and enzymes will be located
here, this is where detection
will take place

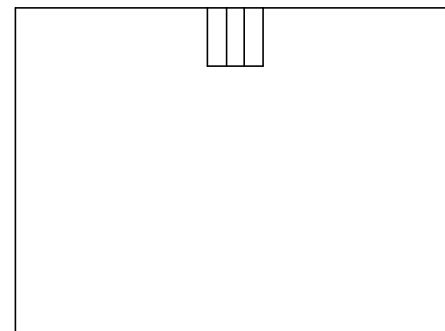
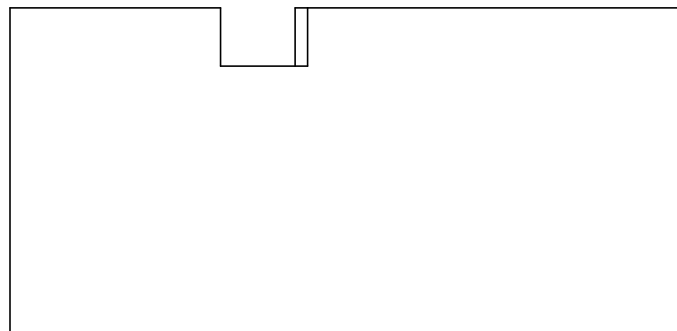
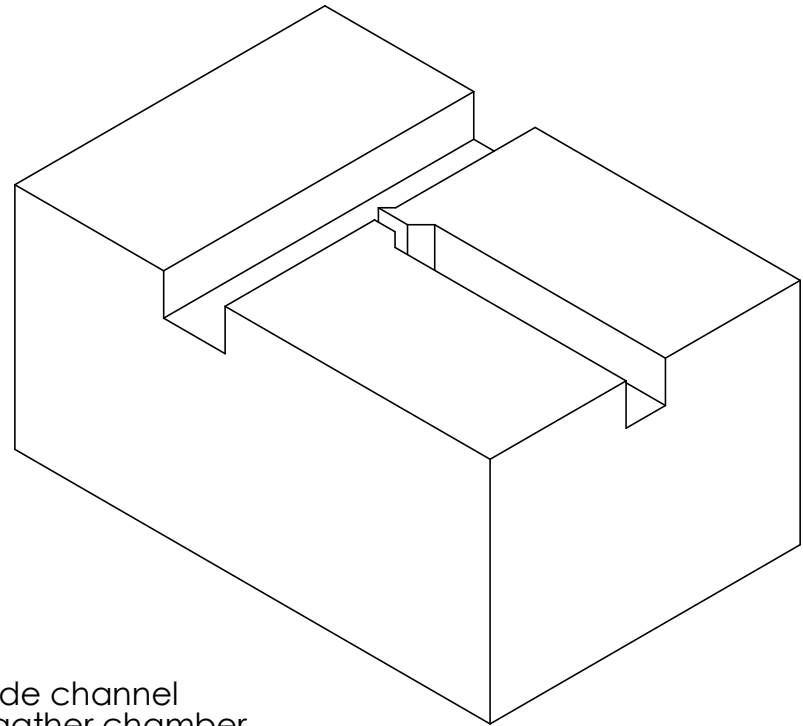
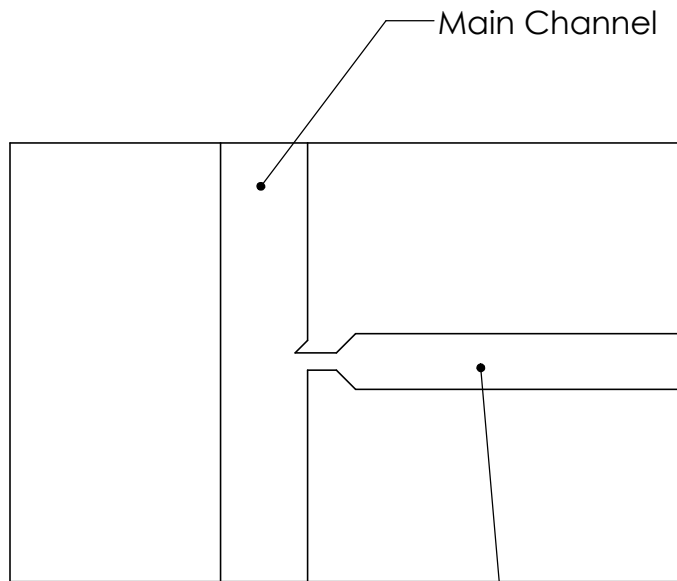
Red blood cells will
be directed here
where they are out
of the way

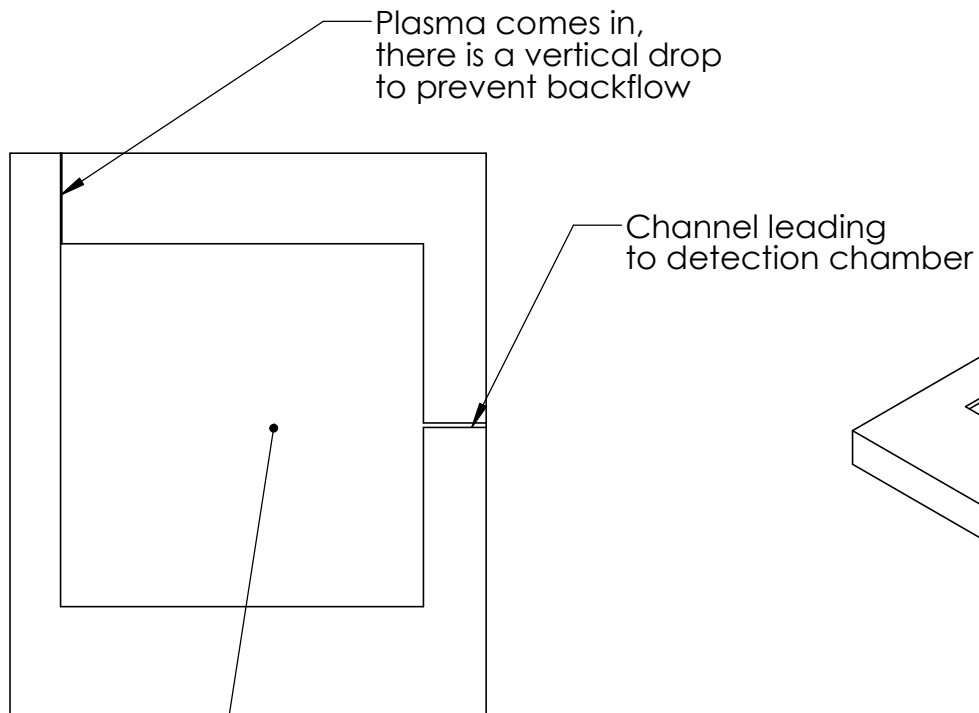
These 4 holes are for
the top of the chip to be attached,
which covers the channels

SECTION B-B

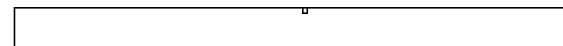
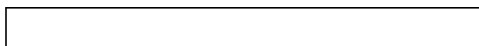
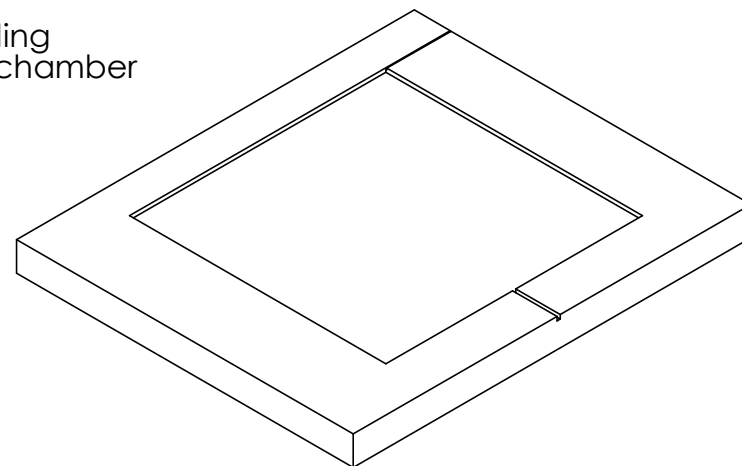




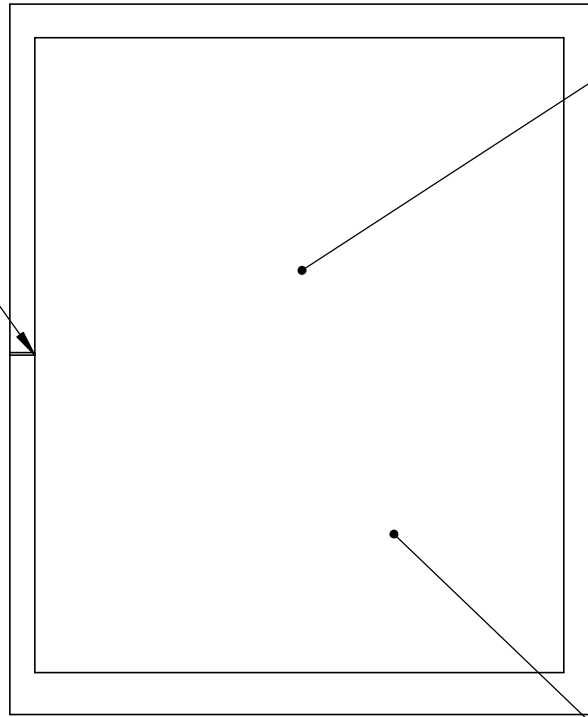




Plasma will gather in
this chamber

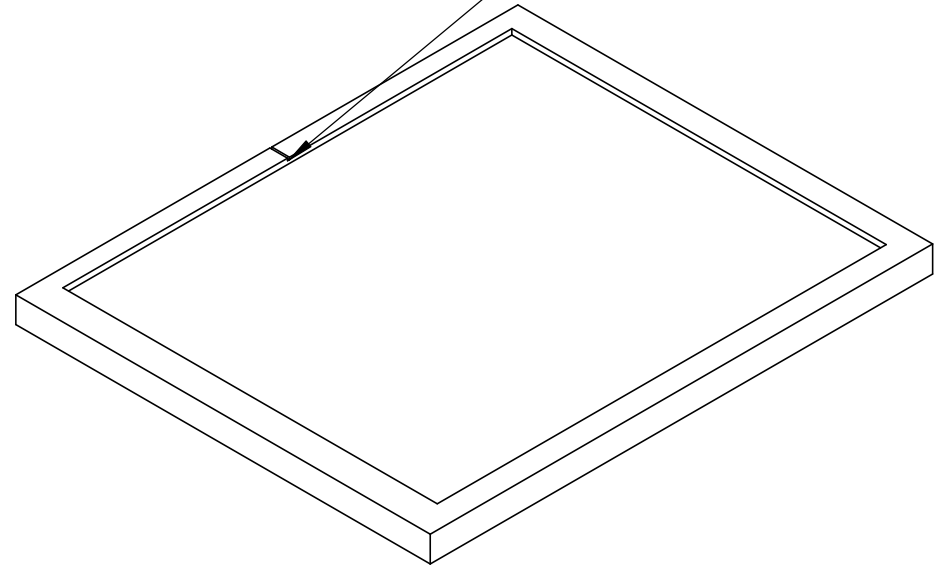


Plasma
entrance
channel



Where detection will occur,
will be preloaded with
reagents

Vertical drop off to prevent
backflow



Bottom will be textured to ensure
turbulent flow

