

Lift-Off Update 01.12.16

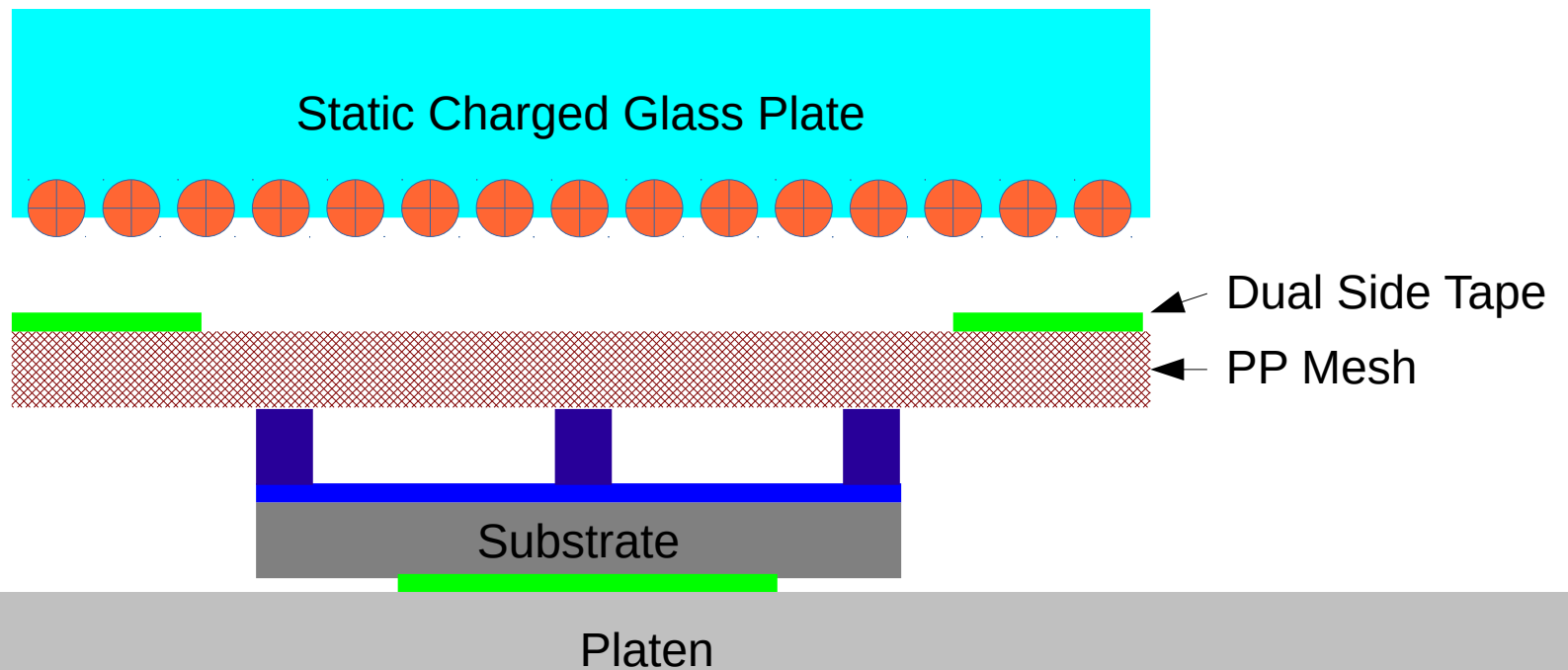
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Problems and Solutions

- Curling membranes – leads to damage
 - Using Thermal Coefficient of Expansion
 - Using static charge and mesh to pick up samples
- 'Welded' membrane edges
 - Still have not resolved
 - Some samples may just need longer BOE

Transfer Technique

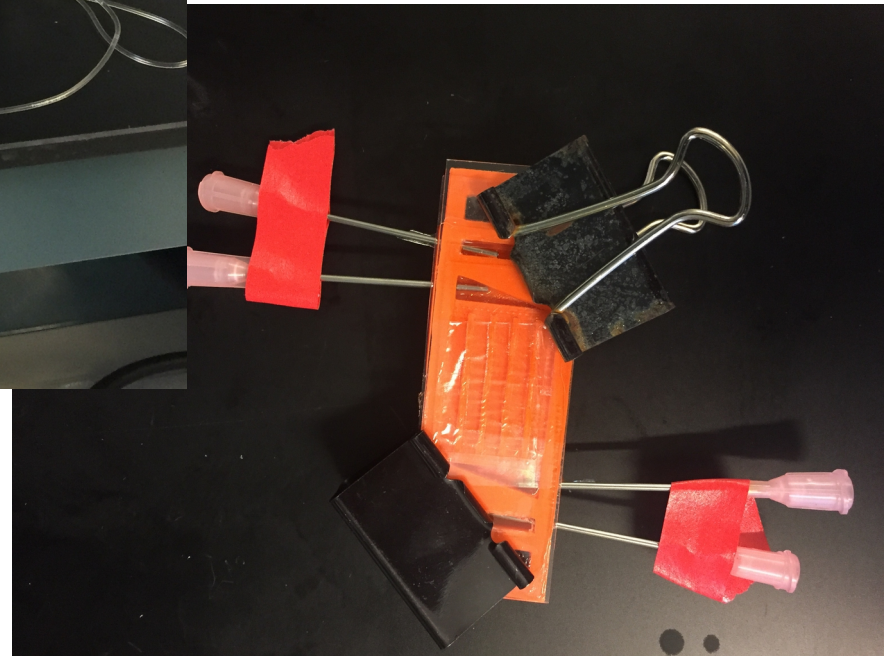
After many trials and failures, we now have a stable means of transferring membranes from substrate to device:



First Results with Filtration

- Added .2um and 10um beads to u-Porous membranes with new capture device
- Used 0.5 ml/min on dialysate side and 1.5 ml/min on 'blood side'
 - Reduced # of 10um beads, but had tears in membrane
 - Need better stereo u-scope to 'mend' membranes after transfer

Experimental setup



Conclusion

- A few challenges remain, but nearly there
- Should be able to start producing decent devices
- Once Tom's new stereo scope is in, we will be able to seal any tears and we can start delivering devices to Tucker/Dean