# GENOMICS

# Blood / Plant Homogenate Transfers

## The Lynx VVP Technology challenged sample transfers are accomplished with full diagnostics and reported volumes.

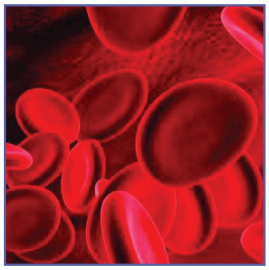
### Challenged Sample Transfers

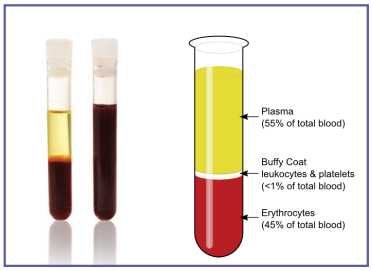
High Throughput laboratories that process plant and seed homogenate and/or blood are continually faced with unsuccessful and unreliable sample transfer due to sample heterogeneity. The Lynx Liquid Handling Robotic Platform performs liquid transfers with a full set of real-time closed loop diagnostics. Volume Verified Pipetting (VVP) offers volumetric validation of processes for all applications, including those that deal with complex sample matrices. Tissue, cells, serum, plant extracts and forensic samples can be notoriously tricky to reliably pipet. Most systems lack closed loop feedback to allow monitor and control of clogging or clots. Furthermore, these systems require liquid classes to accommodate for differences in sample type. VVP offers the ability to monitor and successfully pipet these tricky sample matrixes while actively accommodating for sample viscosity and temperature. This eliminates the need to develop complex liquid classes for every type of sample matrix.

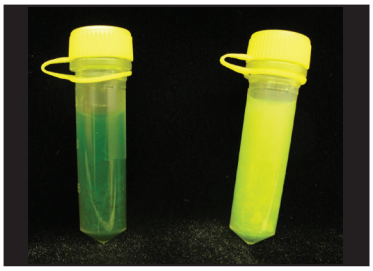
### VVP – Colt/Clog Detection and On-The- Fly Correction

One of the most sought after functionalities in liquid handling robotics is the ability to run individual channels within a high throughput head like the 96 VVP Pipetting Tool. Now, when pipetting errors are encountered by a channel, the aspiration is immediately stopped for just the erred channel, while the reset of the samples are aspirated correctly. The head may then clear the erred channels above the liquid and dip the head again into the samples to re-try the aspiration, correcting for the error on-the-fly.

Clot & Clog detection can be optimized by setting threshold parameters depending on your samples matrix. Once anything starts to interfere with the tip opening and there is an interruption of the average flow rate, that independent channel closes before the clog/ clot is pulled into the tip and permanently clogs it.the average flow rate, that independent channel closes before the clog/ clot is pulled into the tip and permanently clogs it.





### VVP Pipetting Diagnostics / Real-Time Closed-Loop Sensing