ArrayBot

*Software Components*

This document give a brief overview of the Arraybot software

M. T. Karlsson

6/2/2017

ArrayBot

Software Components

# Ribbon production Process



The procedure to produce ribbons of consistent length and quality is semi-automated in the ArrayCam application. The following parameters are involved in this process:

1. Count to: Desired ribbon length.
2. Ribbon creator check box: Enable/disables automated movement of knife stage and automated change of the federate.
3. Feed: The feed edit box denote the current thickness that the Leica is operating at. This number will typically flip between 0 (zero-cut) and the preset cut (e.g. 100nm).
4. Preset Feed: The *Preset Feed* edit box denote what feed rate to use when cutting, e.g. 100nm.
5. Zero cuts before back off: This edit box holds the number of zero strokes executed after wanted ribbon length is achieved and before backing off the knife.
6. Current Knife Position: This Group box contain the currently reported position of the Leica Knife stage.
7. Back off Distance: Number holding the distance that the knife should back off after ribbon length is achieved
8. Max Knife Position Limit: This number holds the (north) limit for where the knife stage is allowed to move. Typically this number is populated when the knife is aligned to current block.
9. Resume Delta Distance: When the knife stage is resuming original cutting position, this number denote a delta south distance and can be used to account for block expansion for example.