

Figure 4 – Scans of processed arrays. Examples of images scanned using a fluorescence scanner. (A) High quality results show circular spots of varying intensity but uniform size. (B) Under higher magnification, high quality spots have homogeneous intensity throughout the spot, and duplicate spots have nearly identical intensity. Printing and processing problems can result in variations in intensity across individual spots, irregular spot morphology, or missing spots.

Video 1 – Pin loading. This video reviews inspection and loading pins prior to printing. Shown first is inspection of pins for debris under a microscope. Next clean pins are carefully loaded into the tool so as not to damage pins against the side of the tool. The tool and pins are then placed under particle-free compressed gas, which removes debris and moisture that contribute to pin sticking. Finally, the pins and tool are loaded into the microarrayer.

Video 2 – Slide loading. In this video, slides are placed on the arrayer's tray such that the printable surface faces upward. The notched corner of the slides was used to check for proper alignment. Also shown is the alignment of the slides, which is necessary to ensure that the arrays align with the slide module.

Video 3 – Initiate printing. This video shows the final steps in preparing the arrayer for printing. The first sample plate is loaded into the arrayer immediately before printing begins. Proper movement of pins is also shown in slow motion.

Video Files:

1. Pin Loading Video = video_1_pin_loading.wmv
2. Slide Loading Video = video_2_slide_loading.wmv
3. Sample Loading Video = video_3_initiate_run.wmv