

Omnivision Camera Alignment

These instructions assist KinExA® users with aligning the Omnivision camera. The camera should be positioned in the center and provide an optimal view of the flow cell.

Tools needed for this procedure

- A bead pack charged into a properly installed flow cell
- 2.5 mm ball driver to align the camera

Protocol

1. Ensure that a flow cell is properly installed on the instrument and that the reflector arm is fully closed (**Figure 1**). Vertical alignment at this point is not critical, it just needs to be close enough to see the upcoming bead pack.
2. Charge a bead pack into the flow cell.
3. Open the KinExA Pro Software. Select **Tools** from the menu bar then **Calibration > Flow Cell Camera**.
4. A browser will open up to display the flow cell and grid lines to assist with alignment (**Figure 2**).

Note: See How to Guide 212 *Computer Setup Checklist (HG212)* under the web browser requirements if the browser will not open

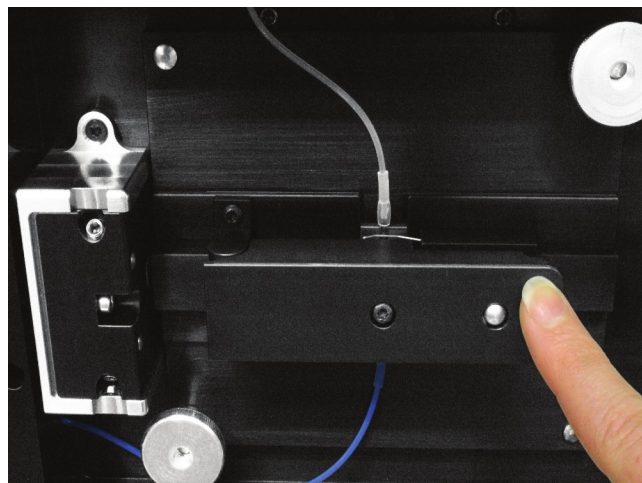


Figure 1. Ensure a flow cell is installed and the reflector arm is fully closed.

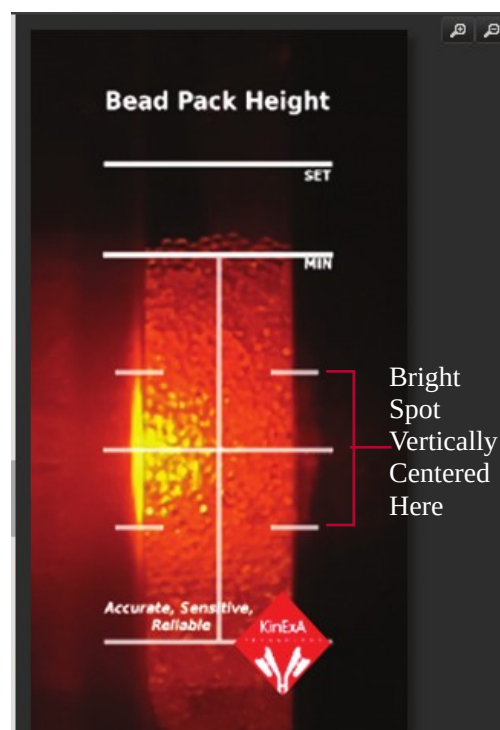


Figure 2. Camera Image with the flow cell and bright spot correctly aligned with the grid lines

7. Use **Figure 3** to identify the adjustment screws of the camera.

8. Initially adjust the focus if necessary by turning the focus adjustment to the left and right.

Note: Make small adjustments only. There is a risk of unseating the lens.

9. Use the directional adjustment screws to **vertically align the bright spot of light** and to **horizontally align the flow cell** in the center of the grid lines (**Figure 2**). The camera does not move straight up, down, left, and right. **Figure 3** shows how turning the top and bottom screws will move the camera image seen in the software (**Figure 2**). There is a slight delay in response on the computer monitor so be patient for the screen to update after slight movements. If preferred, the camera view can be zoomed by clicking the magnifying glass icons to the upper right of the camera image.

10. Readjust the focus again if necessary to ensure clear camera images when using KinExA Pro.

11. Once aligned and focused, close out of the browser.

12. Now that the camera is aligned, check that the flow cell is properly aligned vertically before running any experiments. See *How to Guide 203 Flow Cell Replacement and Alignment (HG203)* for instructions on properly aligning a flow cell.

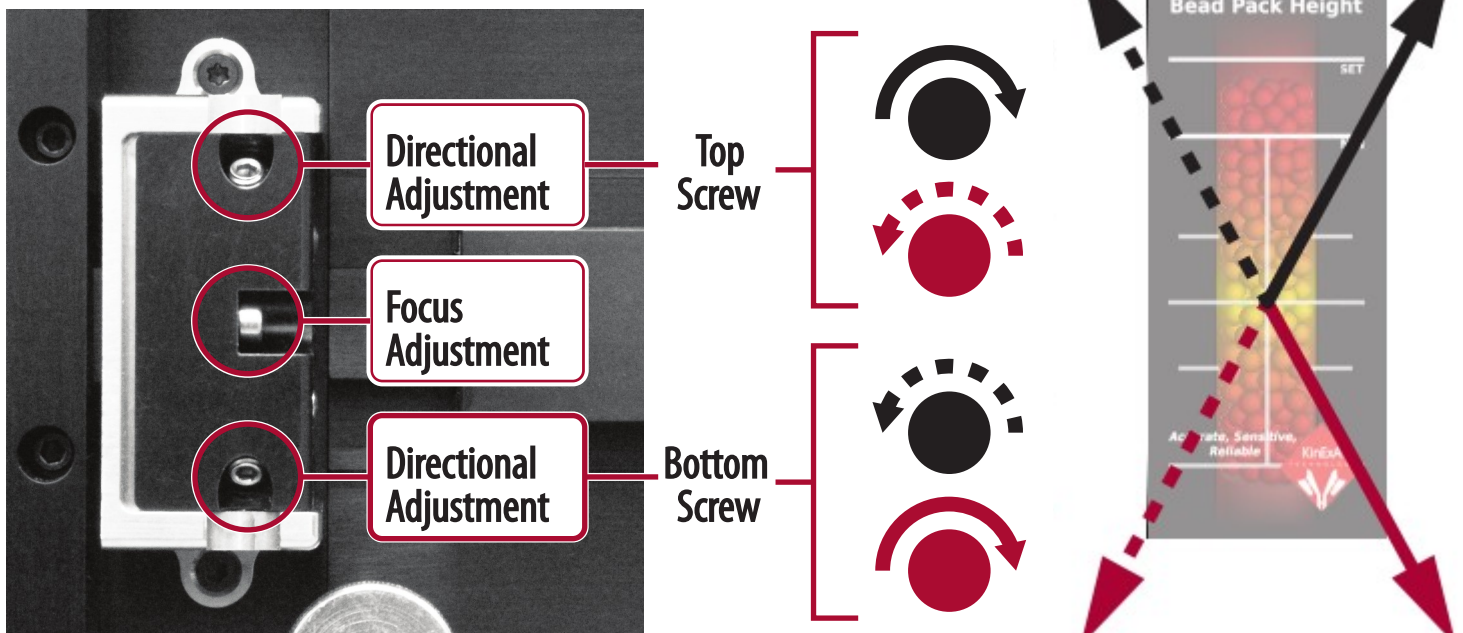


Figure 3. Adjustment screws for the Omnivision camera and directional diagram.