

Must	Want	Is not
Have an adjustable 90mm camera	For the adjustment to use DC motors to allow for adjustment from test bench software.	Autofocusing or automatic adjustment.
Have motor control to move the chip stand in the x,y,x,pitch and yaw directions.	Automatic calibration to a chip based on a triangulation algorithm	Manually moved or set.
Fiber connection with angle of incident adjustment	This angle of adjustment to use DC motors and be controlled from test bench software	Dynamically adjustable during operation; it should be statically aligned with manual adjustments only.
Have functional GUI with controls for position in 3D space, activation of vacuum, laser wavelength, laser intensity, camera zoom, and test bench lighting.	Intuitive and user-friendly GUI	Lacking essential controls and functionalities
Have the ability to measure, accumulate, and export output data into CSV files for later analysis.	Want the ability to see plots based on the input parameters within the test bench software	To address signal processing/noise reduction of the actual plots.
System can accurately and reliably propagate a laser beam through an optical fiber into a device on a photonic integrated chip.	Some way to do tracking for fine alignment to a specific device.	Fully automated and will require user input.
Include a functional vacuum mechanism to securely hold the chip onto the testing station during testing.	Vacuum to use a compressor to reduce the noise of the testing bench.	Crucial to be integrated into the software.
Mounted onto a pre-existing lab table with 12mm holes for mounting.	The testing station is modular meaning it can be moved easily after mounting.	Is not supposed to be vertically mounted.