# FLI ProLine 4022 CCD Imaging System

## Technical Specifications

* Sensor: Kodak KAI-4022 CCD
* Resolution: 2048 x 2048 pixels
* Pixel Size: 7.4 µm x 7.4 µm
* Imaging Area: 15.15 mm x 15.15 mm
* Cooling: Air cooling up to 60°C below ambient; optional liquid cooling up to 80°C below ambient
* Readout Speeds: 1.5 MHz (low noise), 12 MHz (fast readout ~2 fps)
* Read Noise: As low as 5 electrons
* Dark Current: 0.1 to 1 e⁻/pixel/sec at -30°C (typical)
* Full Well Capacity: >40,000 electrons
* Anti-Blooming: Overload margin greater than 100x
* Interface: USB 2.0
* Mounting Options: Standard C-mount; optional Nikon F-mount or Canon EOS mount
* External Triggering: Standard

Source: Finger Lakes Instrumentation [1]

## Data Acquisition via USB

1. Install Necessary Software:

Download and install the FLI Software Installation Kit, which includes USB drivers and ASCOM drivers. This ensures your computer can communicate with the camera. [2]

1. Connect the Camera:

Attach the USB cable between the camera and your computer, and connect the 12V power supply. The camera’s fans should activate, confirming it's operational.

1. Verify Connection:

Once the software and hardware are installed and connected, the camera should be detected. Use FLI software or compatible third-party programs to acquire images. [3]

## Additional Notes

## References

[1] https://www.flicamera.com/spec\_sheets/archive/ML4022.pdf

[2] https://www.flicamera.com/support/support.php

[3] https://device.report/m/bfc8cdda8e63adaf2bbc24c259a2967d69b6f058ff926016d3e20a17cde4947d