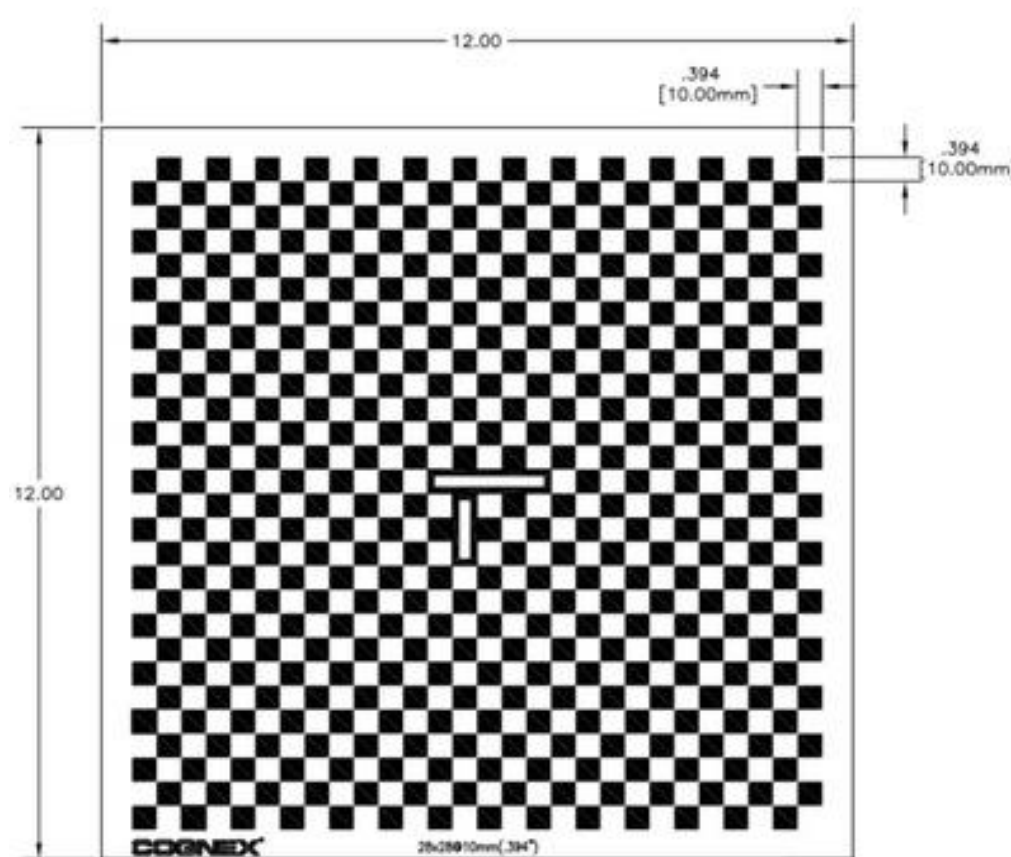




# Fundamentals of Industrial Measurement Technology

## Calibration



ProDSP Post Series Nr.22.



# Why is calibration needed?

To **convert the pixel values** seen by the camera into **real-world coordinates** expressed in millimeters, the entire system must be calibrated.





## Why is it necessary?

- To compensate for lens distortion
- To determine imaging parameters
- To establish an accurate mm/pixel ratio





## How is it done?

- By capturing an image of a **reference object or calibration plate** with known parameters
- The software **calculates the conversion factors** based on the differences between the **measured and actual positions**





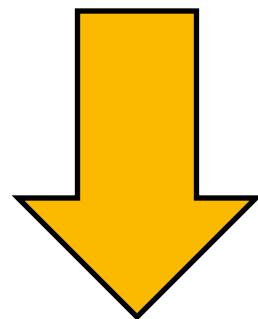
## What equipment is required?

- **Calibration plate** (available with certification)
- Stable fixture or dedicated **holder**
- In many cases, additional **mechanical preparation** is needed





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