

## 1.Camera calibration with 5 elements

Calibrating (5-element model)...

=== Calibration Results ===

RMS reprojection error: 1.239057

Camera matrix (K):

```
[[1.59892480e+03 0.00000000e+00 9.69296796e+02]
 [0.00000000e+00 1.59415580e+03 5.29967953e+02]
 [0.00000000e+00 0.00000000e+00 1.00000000e+00]]
```

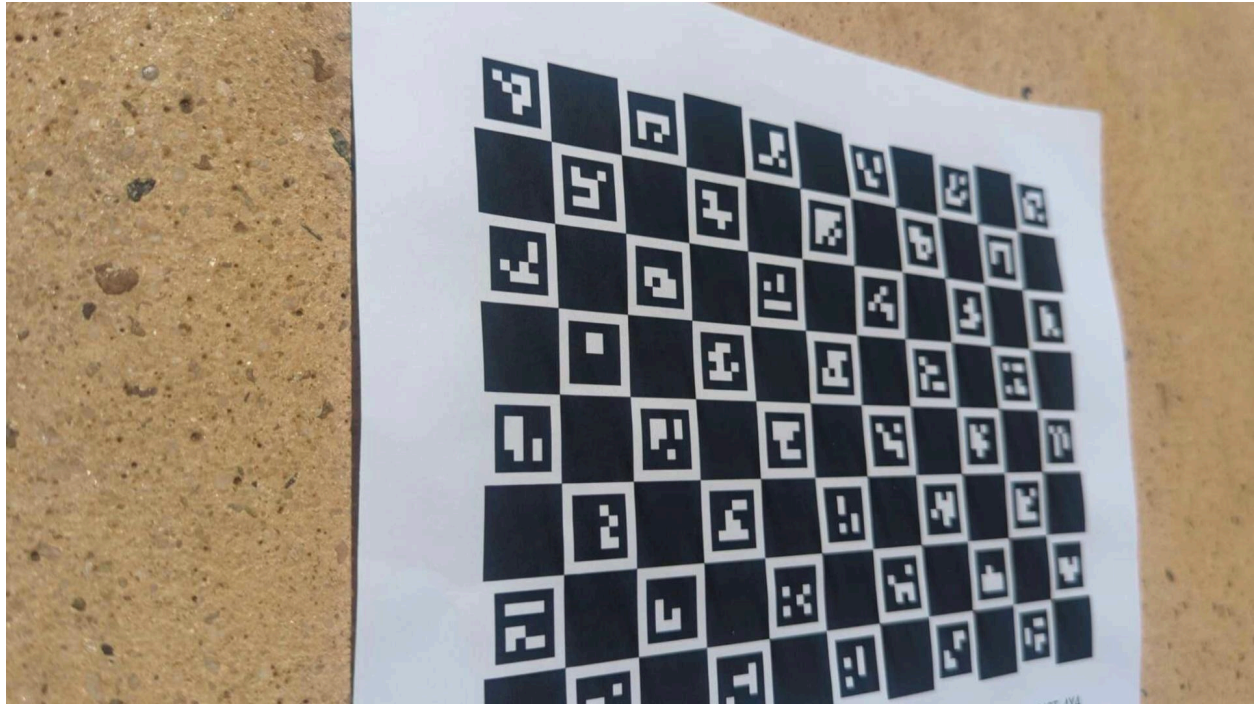
Distortion coefficients [k1 k2 p1 p2 k3]:

```
[ 6.01336826e-02 -4.84393859e-01 -1.72877907e-03 -2.21532811e-04
 9.78578686e-01]
```

Undistorted image

Original (left) vs Rectified/Undistorted (right)





## 2. Camera calibration with 8 elements

Calibrating (8-element model)...

=== Calibration Results ===

RMS reprojection error: 1.204979

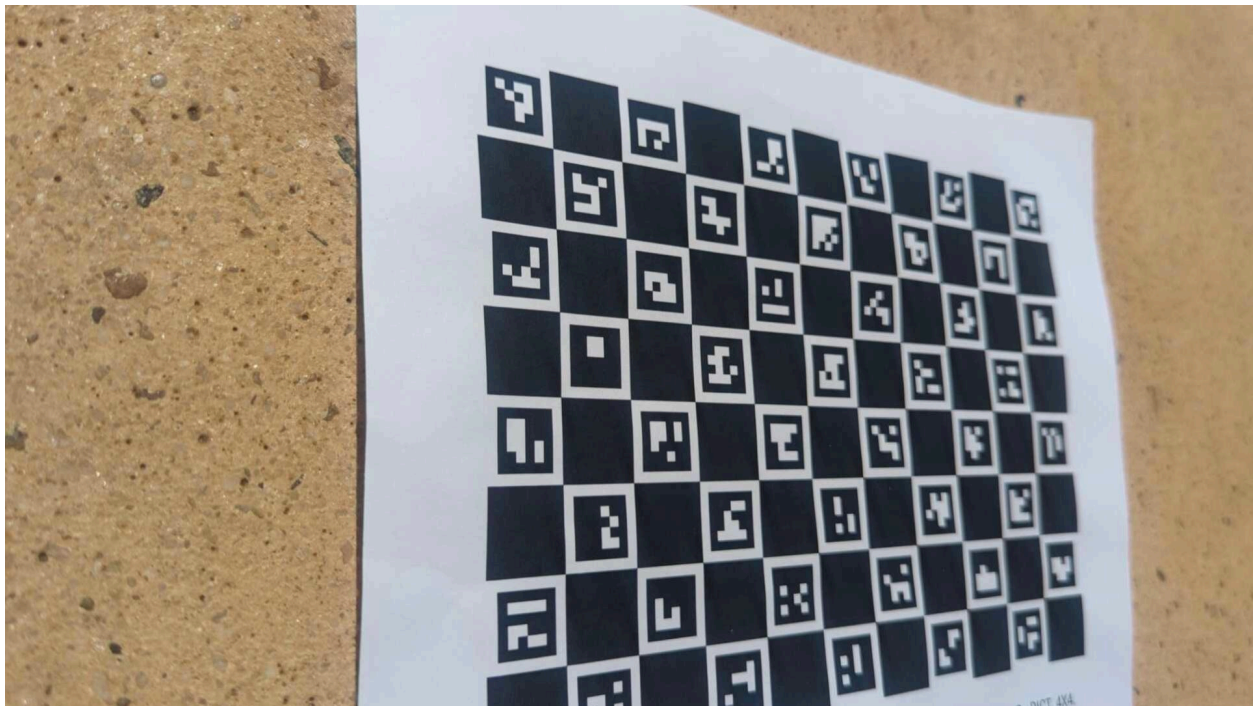
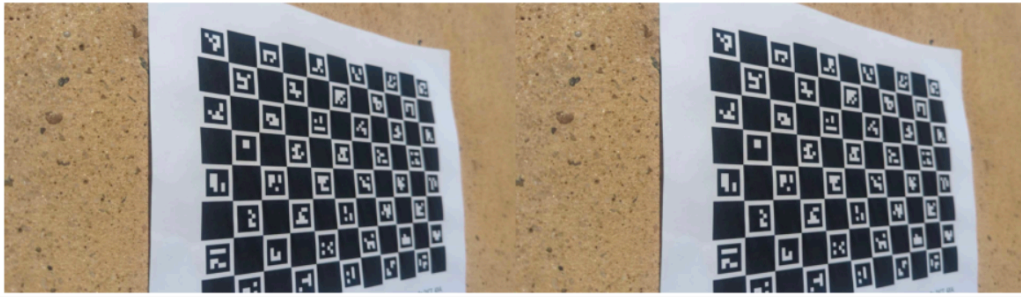
Camera matrix (K):

```
[[1.58794598e+03 0.00000000e+00 9.71190975e+02]
 [0.00000000e+00 1.58317285e+03 5.32284077e+02]
 [0.00000000e+00 0.00000000e+00 1.00000000e+00]]
```

Distortion coefficients (8 elems):

```
[-4.34095210e+00 2.34561361e+02 -1.43418656e-03 2.50504760e-04
 2.21899274e+02 -4.57946317e+00 2.35241974e+02 2.17242060e+02]
```

Original (left) vs Rectified/Undistorted (right)





### 3. Camera calibration with 4 elements

Calibrating (4-element model)...

=== Calibration Results ===  
RMS reprojection error: 1.239057

Camera matrix (K):  
[[1.59892480e+03 0.00000000e+00 9.69296796e+02]  
[0.00000000e+00 1.59415580e+03 5.29967953e+02]  
[0.00000000e+00 0.00000000e+00 1.00000000e+00]]

Distortion coefficients [k1 k2 p1 p2]:  
[ 6.01336826e-02 -4.84393859e-01 -1.72877907e-03 -2.21532811e-04]

Saved calibration to: C:\Users\cdevi\camera\_calib\_images\K\_matrix\_charuco.npz  
Saved undistorted preview to: C:\Users\cdevi\camera\_calib\_images\undistorted\_image.jpg

