

### Camera 1 (Frame1):

**Intrinsic matrix:**

$$\begin{bmatrix} 497.77777778 & 0. & 319.5 & \\ 0. & 497.77777778 & 239.5 & \\ 0. & 0. & 1. & \end{bmatrix}$$

**Extrinsic matrix** (this is the rotation and translation of Camera 1 with respect to the world coordinate system):

$$\begin{bmatrix} 4.99999970e-01 & -8.66025448e-01 & 3.65002428e-08 & 4.22845910e+00; \\ 3.65002428e-08 & 4.60305181e-08 & -1.00000012e+00 & 2.00000055e+00; \\ 8.66025448e-01 & 5.00000060e-01 & 8.81773659e-08 & 7.43200231e+00; \end{bmatrix}$$

**Distortion:**

$$[0.0, 0.0, 0.0, 0.0, 0.0]$$

### Camera 2 (Frame2):

**Intrinsic matrix:**

$$\begin{bmatrix} 497.77777778 & 0. & 319.5 & \\ 0. & 497.77777778 & 239.5 & \\ 0. & 0. & 1. & \end{bmatrix}$$

**Extrinsic matrix** (this is the rotation and translation of Camera 2 with respect to the world coordinate system):

$$\begin{bmatrix} 5.73576510e-01 & -8.19151998e-01 & 3.73847122e-08 & 4.61136417e+00; \\ 3.73847122e-08 & -2.02285122e-09 & -1.00000000e+00 & 2.00000031e+00; \\ 8.19151998e-01 & 5.73576510e-01 & 3.68996460e-08 & 7.04791103e+00; \end{bmatrix}$$

**Distortion:**

$$[0.0, 0.0, 0.0, 0.0, 0.0]$$

**Transformation between cameras:**

R\_vec:

[9.96194713e-01 -5.41550256e-08 8.71558063e-02  
-1.60560472e-08 1.00000012e+00 -5.68126794e-08  
-8.71558795e-02 1.94016203e-08 9.96194765e-01]

T\_vec = [-2.48746482e-01 1.28814475e-08 1.27242718e-02]

The above transformations are from Camera 1 to Camera 2 and have been estimated using the following equations:

$$R_{vec} = R_2 * R_1^T$$
$$T_{vec} = T_2 - R_2 * R_1^T * T_1 = T_2 - R_{vec} * T_1$$