

```
stereoParams1 =  
  
stereoParameters with properties:  
  
Parameters of Two Cameras  
    CameraParameters1: [1x1 cameraParameters]  
    CameraParameters2: [1x1 cameraParameters]  
  
Inter-camera Geometry  
    RotationOfCamera2: [3x3 double]  
    TranslationOfCamera2: [-119.5708 0.0596 -0.1969]  
    FundamentalMatrix: [3x3 double]  
    EssentialMatrix: [3x3 double]  
  
Accuracy of Estimation  
    MeanReprojectionError: 0.1132  
  
Calibration Settings  
    NumPatterns: 128  
    WorldPoints: [54x2 double]  
    WorldUnits: 'millimeters'  
  
estimationErrors1 =  
  
stereoCalibrationErrors with properties:  
  
    CameraIntrinsicsErrors: [1x1 intrinsicsEstimationErrors]  
    CameraExtrinsicsErrors: [1x1 extrinsicsEstimationErrors]
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Camera2IntrinsicsErrors: [1x1 intrinsicsEstimationErrors]
RotationOfCamera2Error: [4.3530e-05 4.1280e-05 7.5690e-06]
TranslationOfCamera2Error: [0.0149 0.0133 0.0378]

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>> stereo_calibration
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Standard Errors of Estimated Stereo Camera Parameters
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Camera 1 Intrinsics
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Focal length (pixels): [ 700.1462 +/- 0.1443      703.9107 +/- 0.1424 ]
Principal point (pixels):[ 633.6940 +/- 0.1275      346.0478 +/- 0.1282 ]
Radial distortion:      [ -0.1733 +/- 0.0001      0.0278 +/- 0.0001 ]

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Camera 1 Extrinsics
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Rotation vectors:
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[ 0.0569 +/- 0.0004      0.4573 +/- 0.0003      -0.2309 +/- 0.0001 ]
[ 0.2328 +/- 0.0003      0.1926 +/- 0.0002      -0.2183 +/- 0.0001 ]
[ -0.3608 +/- 0.0003      -0.2445 +/- 0.0003      0.0537 +/- 0.0001 ]
[ 0.2556 +/- 0.0003      -0.1769 +/- 0.0002      -0.1713 +/- 0.0001 ]
[ 0.0142 +/- 0.0002      0.0520 +/- 0.0002      0.0473 +/- 0.0001 ]
[ 0.2784 +/- 0.0003      -0.5536 +/- 0.0002      0.0904 +/- 0.0001 ]
[ 0.2622 +/- 0.0003      -0.2070 +/- 0.0002      0.1148 +/- 0.0001 ]
[ 0.0566 +/- 0.0010      -1.0015 +/- 0.0010      2.8461 +/- 0.0004 ]
[ -0.0349 +/- 0.0008      -0.5129 +/- 0.0009      2.9671 +/- 0.0002 ]
[ -0.2576 +/- 0.0009      -0.5380 +/- 0.0009      3.0276 +/- 0.0002 ]
[ -0.0023 +/- 0.0007      -0.5027 +/- 0.0007      3.0234 +/- 0.0001 ]
[ -0.2498 +/- 0.0009      -0.2651 +/- 0.0009      3.0422 +/- 0.0002 ]

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[ -0.2198 +/- 0.0009      -0.3895 +/- 0.0009      3.0102 +/- 0.0002 ]
[ -0.3762 +/- 0.0006      0.1948 +/- 0.0007     -3.0546 +/- 0.0002 ]
[ -0.4126 +/- 0.0015     -0.5810 +/- 0.0019      2.8318 +/- 0.0004 ]
[  0.2246 +/- 0.0010     -0.0387 +/- 0.0010     -1.1540 +/- 0.0003 ]
[  0.1615 +/- 0.0009     -0.1837 +/- 0.0008     -0.1654 +/- 0.0003 ]
[  0.3100 +/- 0.0003     -0.2299 +/- 0.0002      0.0511 +/- 0.0001 ]
[  0.1288 +/- 0.0008     -0.3148 +/- 0.0007      0.2962 +/- 0.0002 ]
[  0.2934 +/- 0.0009     -0.0262 +/- 0.0009     -0.5038 +/- 0.0002 ]
[ -0.1447 +/- 0.0008      0.3142 +/- 0.0007     -0.3036 +/- 0.0002 ]
[  0.2521 +/- 0.0012     -0.1022 +/- 0.0012      0.1413 +/- 0.0003 ]
[  0.2263 +/- 0.0008      0.2218 +/- 0.0007      0.1920 +/- 0.0002 ]
[  0.2904 +/- 0.0029     -0.3890 +/- 0.0027     -0.2383 +/- 0.0007 ]
[ -0.5823 +/- 0.0006     -0.4747 +/- 0.0006      0.2420 +/- 0.0003 ]
[  0.1653 +/- 0.0012     -0.1435 +/- 0.0011      0.2587 +/- 0.0003 ]
[ -0.1192 +/- 0.0017      0.2272 +/- 0.0016      0.0333 +/- 0.0004 ]
[  0.0158 +/- 0.0021     -0.0136 +/- 0.0019     -0.0569 +/- 0.0003 ]
[  0.3806 +/- 0.0019     -0.0886 +/- 0.0019     -0.0437 +/- 0.0002 ]
[  0.0004 +/- 0.0034     -0.2429 +/- 0.0030      0.5660 +/- 0.0005 ]
[  0.3269 +/- 0.0013     -0.0328 +/- 0.0012     -0.1500 +/- 0.0003 ]
[  0.1425 +/- 0.0010     -0.0045 +/- 0.0009      0.2912 +/- 0.0003 ]
[  0.3158 +/- 0.0036     -0.0597 +/- 0.0030      0.0036 +/- 0.0005 ]
[  0.4126 +/- 0.0012     -0.2973 +/- 0.0011      0.1826 +/- 0.0002 ]
[  0.1392 +/- 0.0023     -0.1608 +/- 0.0023      1.4903 +/- 0.0005 ]
[  0.2513 +/- 0.0027     -0.2102 +/- 0.0028      2.0975 +/- 0.0006 ]
[  0.0323 +/- 0.0019     -0.5565 +/- 0.0021      2.6748 +/- 0.0004 ]
[  0.2685 +/- 0.0021      0.3757 +/- 0.0022     -2.8452 +/- 0.0006 ]
[  0.3950 +/- 0.0025      0.4659 +/- 0.0026     -2.8485 +/- 0.0008 ]
[  0.1435 +/- 0.0014      0.5374 +/- 0.0014     -2.8502 +/- 0.0005 ]
[  0.0111 +/- 0.0013      0.3277 +/- 0.0014     -2.9616 +/- 0.0004 ]
[  0.4652 +/- 0.0026      0.5461 +/- 0.0027     -2.8935 +/- 0.0009 ]
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[ 0.5590 +/- 0.0038      0.4405 +/- 0.0043      -2.9175 +/- 0.0013 ]
[ 0.3100 +/- 0.0027     -0.0095 +/- 0.0029       2.4003 +/- 0.0004 ]
[ 0.4379 +/- 0.0051     -0.1341 +/- 0.0063       2.3650 +/- 0.0011 ]
[ -0.0478 +/- 0.0014     -0.1995 +/- 0.0015       2.3430 +/- 0.0003 ]
[ 0.3338 +/- 0.0003     -0.0047 +/- 0.0003       0.1423 +/- 0.0001 ]
[ -0.2795 +/- 0.0004     0.7105 +/- 0.0003       0.1618 +/- 0.0001 ]
[ 0.0516 +/- 0.0005     0.5605 +/- 0.0004      -0.0469 +/- 0.0001 ]
[ 0.5146 +/- 0.0003     0.5944 +/- 0.0003       0.0446 +/- 0.0001 ]
[ 0.4546 +/- 0.0003     -0.1391 +/- 0.0003       0.0671 +/- 0.0001 ]
[ -0.3116 +/- 0.0002     0.3935 +/- 0.0002       0.0835 +/- 0.0001 ]
[ 0.2855 +/- 0.0002     0.4068 +/- 0.0002       0.1897 +/- 0.0001 ]
[ 0.0903 +/- 0.0002     0.1275 +/- 0.0002       0.6163 +/- 0.0001 ]
[ 0.0471 +/- 0.0002     0.2034 +/- 0.0002       0.6400 +/- 0.0001 ]
[ -0.1406 +/- 0.0002     0.4487 +/- 0.0002      -0.3340 +/- 0.0001 ]
[ 0.2834 +/- 0.0003     -0.3102 +/- 0.0003       0.2077 +/- 0.0001 ]
[ 0.4317 +/- 0.0002     -0.1163 +/- 0.0002       0.2021 +/- 0.0001 ]
[ 0.1802 +/- 0.0003     0.0488 +/- 0.0003       0.1171 +/- 0.0001 ]
[ 0.4054 +/- 0.0003     -0.2050 +/- 0.0003       0.0520 +/- 0.0001 ]
[ 0.1883 +/- 0.0004     0.3608 +/- 0.0003      -0.4010 +/- 0.0001 ]
[ 0.4477 +/- 0.0004     0.5531 +/- 0.0004       0.2521 +/- 0.0001 ]
[ 0.2616 +/- 0.0005     0.5670 +/- 0.0004      -0.0239 +/- 0.0001 ]
[ 0.6583 +/- 0.0003     0.4218 +/- 0.0003      -0.0749 +/- 0.0001 ]
[ 0.1310 +/- 0.0004     0.0029 +/- 0.0004      -0.0523 +/- 0.0001 ]
[ 0.2321 +/- 0.0004     -0.0670 +/- 0.0003      -0.0315 +/- 0.0001 ]
[ -0.6191 +/- 0.0007     -0.0444 +/- 0.0006      -0.0114 +/- 0.0001 ]
[ -0.6059 +/- 0.0007     -0.0556 +/- 0.0006      -0.0030 +/- 0.0001 ]
[ -0.4627 +/- 0.0004     0.5374 +/- 0.0004       0.1831 +/- 0.0001 ]
[ -0.4520 +/- 0.0004     0.5338 +/- 0.0004       0.1783 +/- 0.0001 ]
[ -0.1878 +/- 0.0007     -0.0104 +/- 0.0006       0.5808 +/- 0.0002 ]
[ -0.1770 +/- 0.0007     -0.0093 +/- 0.0006       0.5698 +/- 0.0002 ]
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[ -0.0886 +/- 0.0006      -0.2911 +/- 0.0005      1.2212 +/- 0.0002 ]
[ -0.1279 +/- 0.0006      -0.2359 +/- 0.0006      1.2099 +/- 0.0002 ]
[ -0.2336 +/- 0.0005      -0.4708 +/- 0.0004     -1.5252 +/- 0.0002 ]
[  0.0900 +/- 0.0004       0.0561 +/- 0.0004      -0.2018 +/- 0.0001 ]
[  0.0207 +/- 0.0003      -0.2429 +/- 0.0003     -0.2188 +/- 0.0001 ]
[  0.0942 +/- 0.0004      -0.0902 +/- 0.0004     -0.4584 +/- 0.0001 ]
[  0.3162 +/- 0.0004      -0.2014 +/- 0.0003      0.3255 +/- 0.0001 ]
[  0.3892 +/- 0.0004     -0.0646 +/- 0.0004     -0.5757 +/- 0.0001 ]
[ -0.3607 +/- 0.0004      0.0897 +/- 0.0003      0.3990 +/- 0.0001 ]
[  0.2802 +/- 0.0003      0.1586 +/- 0.0003      0.3360 +/- 0.0001 ]
[  0.2911 +/- 0.0004     -0.1085 +/- 0.0004      0.2255 +/- 0.0001 ]
[  0.5667 +/- 0.0003     -0.1594 +/- 0.0003      0.2819 +/- 0.0001 ]
[  0.2691 +/- 0.0005     -0.1442 +/- 0.0004      0.3908 +/- 0.0001 ]
[  0.4174 +/- 0.0004     -0.0768 +/- 0.0003      0.3688 +/- 0.0001 ]
[  0.3964 +/- 0.0004     -0.0611 +/- 0.0004      0.1134 +/- 0.0001 ]
[ -0.1550 +/- 0.0005     -0.3263 +/- 0.0005      0.0314 +/- 0.0002 ]
[ -0.0558 +/- 0.0005     -0.2110 +/- 0.0005     -0.0487 +/- 0.0002 ]
[  0.6480 +/- 0.0005     -0.2147 +/- 0.0004      0.0715 +/- 0.0001 ]
[  0.1678 +/- 0.0009      0.1949 +/- 0.0007      0.3229 +/- 0.0001 ]
[  0.3137 +/- 0.0003     -0.1971 +/- 0.0003     -0.4048 +/- 0.0001 ]
[ -0.0706 +/- 0.0004      0.1524 +/- 0.0004     -0.2085 +/- 0.0001 ]
[  0.0659 +/- 0.0006      0.3659 +/- 0.0006     -0.1392 +/- 0.0002 ]
[ -0.1540 +/- 0.0004      0.2054 +/- 0.0004     -0.0997 +/- 0.0002 ]
[  0.4365 +/- 0.0004      0.0544 +/- 0.0004     -0.2884 +/- 0.0001 ]
[  0.2592 +/- 0.0004     -0.1546 +/- 0.0004      0.0136 +/- 0.0002 ]
[  0.2535 +/- 0.0005     -0.1024 +/- 0.0005      0.5578 +/- 0.0002 ]
[ -0.3272 +/- 0.0009     -0.0153 +/- 0.0008     -0.3671 +/- 0.0002 ]
[ -0.3942 +/- 0.0006      0.0740 +/- 0.0005     -0.2965 +/- 0.0001 ]
[  0.2146 +/- 0.0005     -0.1142 +/- 0.0005      0.2052 +/- 0.0002 ]
[ -0.0940 +/- 0.0006     -0.4401 +/- 0.0006      1.7318 +/- 0.0002 ]
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[ 0.3014 +/- 0.0005      0.0133 +/- 0.0005      1.5143 +/- 0.0002 ]
[ 0.0895 +/- 0.0007     -0.2391 +/- 0.0008     3.1123 +/- 0.0001 ]
[ 0.0884 +/- 0.0007     -0.2594 +/- 0.0008     3.0947 +/- 0.0001 ]
[ 0.4943 +/- 0.0014     -0.2486 +/- 0.0016     -2.8816 +/- 0.0003 ]
[ 0.1793 +/- 0.0008      0.3918 +/- 0.0008     -3.0319 +/- 0.0003 ]
[ 0.0445 +/- 0.0015     -0.1669 +/- 0.0018      3.0575 +/- 0.0002 ]
[ -0.5909 +/- 0.0005     -0.2445 +/- 0.0006      3.0720 +/- 0.0002 ]
[ -0.2757 +/- 0.0008     -0.4086 +/- 0.0008     -2.7653 +/- 0.0003 ]
[ -0.0608 +/- 0.0012     -0.3245 +/- 0.0013      2.4425 +/- 0.0002 ]
[ 0.6252 +/- 0.0008     -0.2210 +/- 0.0009      2.8685 +/- 0.0002 ]
[ 0.7923 +/- 0.0011      0.3282 +/- 0.0013     -2.8162 +/- 0.0004 ]
[ -0.0485 +/- 0.0007      0.2223 +/- 0.0007      2.6328 +/- 0.0002 ]
[ 0.1947 +/- 0.0006     -0.2238 +/- 0.0006      2.9451 +/- 0.0001 ]
[ -0.1187 +/- 0.0007     -0.1409 +/- 0.0007      2.8304 +/- 0.0002 ]
[ -0.6062 +/- 0.0013     -0.3426 +/- 0.0014      3.0204 +/- 0.0004 ]
[ -0.8114 +/- 0.0020     -0.3647 +/- 0.0028      2.9725 +/- 0.0007 ]
[ -1.0139 +/- 0.0016     -0.4457 +/- 0.0022      2.7770 +/- 0.0008 ]
[ -0.5785 +/- 0.0011     -0.4368 +/- 0.0012      2.6009 +/- 0.0003 ]
[ 0.2789 +/- 0.0009      0.2321 +/- 0.0010     -3.0184 +/- 0.0001 ]
[ 0.1713 +/- 0.0006      0.2652 +/- 0.0007     -2.9975 +/- 0.0001 ]
[ 0.2816 +/- 0.0013      0.0447 +/- 0.0014      2.0104 +/- 0.0003 ]
[ 0.2296 +/- 0.0012      0.0299 +/- 0.0012      2.0535 +/- 0.0003 ]
[ 0.4007 +/- 0.0018      0.1210 +/- 0.0018      1.7129 +/- 0.0004 ]
[ -0.0688 +/- 0.0006     -0.1352 +/- 0.0006      1.8248 +/- 0.0002 ]
[ -0.0308 +/- 0.0021     -0.3855 +/- 0.0030      2.8479 +/- 0.0005 ]
[ -0.0818 +/- 0.0016     -0.2467 +/- 0.0019      3.0846 +/- 0.0003 ]

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Translation vectors (millimeters):

```

[ 277.6478 +/- 0.2841    140.5427 +/- 0.2637    1459.2777 +/- 0.3272 ]
[ -66.2818 +/- 0.2305    147.1184 +/- 0.2251    1242.0355 +/- 0.2844 ]

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[ -261.5597 +/- 0.2270      -42.2130 +/- 0.2311      1240.9890 +/- 0.2802 ]
[ -618.9238 +/- 0.2059      100.3102 +/- 0.2042      1054.5938 +/- 0.2890 ]
[ -937.9762 +/- 0.2066      -73.8863 +/- 0.2230      1088.6827 +/- 0.3027 ]
[ -609.6724 +/- 0.1849      -12.8703 +/- 0.1707       836.0311 +/- 0.2585 ]
[ -114.8567 +/- 0.1944      -161.4100 +/- 0.1934     1033.8427 +/- 0.2639 ]
[  327.9417 +/- 0.5112      -684.6750 +/- 0.5547     2778.8253 +/- 0.7239 ]
[ -725.5564 +/- 0.5426      -193.0968 +/- 0.4996     2606.2092 +/- 0.8318 ]
[ -1170.8039 +/- 0.6124     -146.5172 +/- 0.5127     2642.1246 +/- 0.8527 ]
[ -1410.7495 +/- 0.6600     -159.5423 +/- 0.5246     2662.7747 +/- 0.8999 ]
[ -1523.3740 +/- 0.6935     -688.6160 +/- 0.5803     2683.6783 +/- 0.9719 ]
[ -1456.0553 +/- 0.6749     -730.2684 +/- 0.5798     2652.6407 +/- 0.9499 ]
[ -842.8913 +/- 0.5412      -647.0095 +/- 0.5401     2577.3465 +/- 0.8639 ]
[ -615.4229 +/- 0.5395     -562.8259 +/- 0.5287     2575.8608 +/- 0.8372 ]
[  428.0944 +/- 0.7991       906.4191 +/- 0.7796     4202.4384 +/- 1.3931 ]
[  258.5739 +/- 0.7546       634.6214 +/- 0.7780     4033.8990 +/- 1.6023 ]
[ -440.4635 +/- 0.1920     -124.6401 +/- 0.1887     977.3108 +/- 0.2611 ]
[    8.8890 +/- 0.7119       424.9289 +/- 0.7356     3839.5172 +/- 1.5976 ]
[ -786.6676 +/- 0.7564       672.6728 +/- 0.7609     4072.6444 +/- 1.3409 ]
[ -1207.4859 +/- 0.8725       625.1589 +/- 0.8503     4382.4504 +/- 1.4787 ]
[ -1617.8337 +/- 0.8751       -65.2915 +/- 0.8114     4300.2836 +/- 1.4981 ]
[ -1642.5739 +/- 0.9417       -558.4864 +/- 0.8370     4430.0174 +/- 1.5970 ]
[ -2557.4499 +/- 1.1026       -645.3636 +/- 0.8608     4180.9435 +/- 1.7401 ]
[ -515.5621 +/- 0.7884       -716.3160 +/- 0.7968     4260.1111 +/- 1.4132 ]
[  1026.6490 +/- 0.9593      -1003.1329 +/- 0.9184     4573.9922 +/- 2.2351 ]
[  1042.8573 +/- 0.9946       -930.2379 +/- 0.9165     4811.1554 +/- 1.6657 ]
[  282.2209 +/- 0.8938      -1049.1532 +/- 0.9271     4713.8923 +/- 2.1996 ]
[ -435.3706 +/- 0.8398       -988.3159 +/- 0.9285     4461.3125 +/- 1.9689 ]
[ -912.8633 +/- 0.8722      -1130.8614 +/- 0.8509     4416.7774 +/- 1.7551 ]
[ -2064.9580 +/- 0.9757       -853.0988 +/- 0.8568     4323.7513 +/- 1.5633 ]
[ -2317.7776 +/- 1.0794       -893.3159 +/- 0.8627     4373.2303 +/- 1.6425 ]
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[ -1007.1797 +/- 0.8554      -1434.3149 +/- 0.9561      4432.8977 +/- 1.7759 ]
[   18.4446 +/- 0.8023      -1312.9719 +/- 0.9509      4265.4118 +/- 2.0314 ]
[  1083.1434 +/- 0.8792      -1205.6972 +/- 0.8830      4520.4855 +/- 1.6853 ]
[  1444.1055 +/- 0.8957       -731.9135 +/- 0.8794      4482.7110 +/- 1.8198 ]
[  -834.4520 +/- 0.8813     -1189.5414 +/- 0.9688      4103.4047 +/- 1.8822 ]
[ -1363.0836 +/- 0.9772       -710.3899 +/- 0.8876      4174.4753 +/- 1.8754 ]
[ -1390.4042 +/- 0.9774     -662.9805 +/- 0.8781      4205.5843 +/- 1.7112 ]
[ -1606.1478 +/- 1.0189     -714.2573 +/- 0.8854      4209.6662 +/- 1.7305 ]
[ -1512.2227 +/- 0.9949    -1042.9400 +/- 0.9362      4123.4945 +/- 1.8502 ]
[ -1810.1252 +/- 1.1415    -1078.9894 +/- 1.0021      4302.6080 +/- 1.9274 ]
[ -1767.2646 +/- 1.2048    -1010.7869 +/- 1.0201      4311.6808 +/- 2.1588 ]
[  1781.7493 +/- 0.8772    -1259.5062 +/- 0.8816      4235.5831 +/- 1.5111 ]
[  1769.2602 +/- 1.0212    -1241.6281 +/- 0.9699      4209.3197 +/- 2.1803 ]
[  1763.8470 +/- 0.9286    -1194.8069 +/- 0.9151      4416.0766 +/- 1.4617 ]
[   390.1463 +/- 0.2400     -158.8769 +/- 0.2280      1206.8918 +/- 0.3173 ]
[   469.5393 +/- 0.3168     -147.2428 +/- 0.3011      1635.5573 +/- 0.2859 ]
[   232.1968 +/- 0.3016     -437.1028 +/- 0.2818      1555.3702 +/- 0.3171 ]
[   201.1886 +/- 0.2781     -487.1847 +/- 0.2636      1414.5439 +/- 0.2924 ]
[  -296.1774 +/- 0.2052     -402.2454 +/- 0.2114      1058.1681 +/- 0.2862 ]
[  -729.1435 +/- 0.2933     -389.3211 +/- 0.2989      1579.6569 +/- 0.3242 ]
[  -808.3149 +/- 0.2508     -498.6076 +/- 0.2595      1320.9547 +/- 0.3190 ]
[  -910.8815 +/- 0.2307     -455.8071 +/- 0.2317      1137.1820 +/- 0.3117 ]
[  -745.9261 +/- 0.2255     -458.1052 +/- 0.2272      1162.9709 +/- 0.2879 ]
[ -1103.5886 +/- 0.2499     -133.3718 +/- 0.2635      1281.6499 +/- 0.3274 ]
[  -388.9877 +/- 0.1993     -299.5044 +/- 0.1952      992.3765 +/- 0.2699 ]
[  -622.4259 +/- 0.1901     -253.9279 +/- 0.1948      963.5465 +/- 0.2694 ]
[  -819.2663 +/- 0.2281     -525.9254 +/- 0.2403      1185.3091 +/- 0.3213 ]
[  -782.2649 +/- 0.2073     -327.3662 +/- 0.2108      1001.1257 +/- 0.3023 ]
[  -414.4522 +/- 0.2752     -193.4049 +/- 0.2828      1531.7220 +/- 0.3258 ]
[   194.4354 +/- 0.3028     -649.5459 +/- 0.2882      1545.0795 +/- 0.3390 ]
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[ 294.4201 +/- 0.3107      -543.5084 +/- 0.2913      1557.3088 +/- 0.3417 ]
[ 274.1325 +/- 0.2673      -508.3725 +/- 0.2590      1325.2597 +/- 0.3066 ]
[ 249.5854 +/- 0.3889      437.6532 +/- 0.3880      2046.5565 +/- 0.5889 ]
[ 259.3493 +/- 0.3730      437.9804 +/- 0.3712      1955.2753 +/- 0.5577 ]
[ -213.0111 +/- 0.4232      543.5918 +/- 0.4618      2317.3113 +/- 0.5845 ]
[ -222.1091 +/- 0.4249      525.8133 +/- 0.4640      2329.0934 +/- 0.5931 ]
[ -402.1706 +/- 0.4636      441.9296 +/- 0.4826      2502.7465 +/- 0.5271 ]
[ -386.8726 +/- 0.4619      419.4625 +/- 0.4801      2497.0306 +/- 0.5243 ]
[ -837.8192 +/- 0.4104      118.4029 +/- 0.4142      2181.6401 +/- 0.5790 ]
[ -862.0701 +/- 0.4119      120.2219 +/- 0.4155      2185.6003 +/- 0.5787 ]
[ -929.0459 +/- 0.4685      142.1479 +/- 0.4005      2097.7581 +/- 0.6479 ]
[ -997.2845 +/- 0.4623      124.9410 +/- 0.4012      2087.0906 +/- 0.6330 ]
[ 557.4632 +/- 0.3847      847.7845 +/- 0.3894      1880.5257 +/- 0.5850 ]
[ 836.7472 +/- 0.4267      -153.0520 +/- 0.3748      1977.3018 +/- 0.6027 ]
[ 900.6880 +/- 0.4051      -117.3843 +/- 0.3487      1823.2595 +/- 0.5506 ]
[ 808.6474 +/- 0.4255      -42.0785 +/- 0.3767      1989.4462 +/- 0.6009 ]
[ 273.5089 +/- 0.3359      -202.1070 +/- 0.3331      1780.5401 +/- 0.5263 ]
[ -651.3751 +/- 0.3190      105.8496 +/- 0.3203      1712.2888 +/- 0.4468 ]
[ -1005.0256 +/- 0.3711      -242.4960 +/- 0.3692      1921.1124 +/- 0.4383 ]
[ -1581.5123 +/- 0.3905      -316.1948 +/- 0.3666      1750.8942 +/- 0.5327 ]
[ -1601.7767 +/- 0.3859      -372.2731 +/- 0.3665      1728.2485 +/- 0.5519 ]
[ -1446.6659 +/- 0.3547      -299.9597 +/- 0.3417      1610.8901 +/- 0.5181 ]
[ -1374.3383 +/- 0.3869      -791.5959 +/- 0.3755      1785.6684 +/- 0.5490 ]
[ -1494.3725 +/- 0.3806      -745.5714 +/- 0.3658      1692.0079 +/- 0.5472 ]
[ -1563.3192 +/- 0.3963      -901.3693 +/- 0.3851      1742.7231 +/- 0.5704 ]
[ -1130.6401 +/- 0.3869      -888.7822 +/- 0.3908      1904.3292 +/- 0.5235 ]
[ -1038.1372 +/- 0.3849      -861.4189 +/- 0.3930      1939.7837 +/- 0.5183 ]
[ -906.3377 +/- 0.3343      -695.5145 +/- 0.3450      1616.0240 +/- 0.4804 ]
[ -93.6320 +/- 0.3838      -798.0723 +/- 0.3852      2046.0552 +/- 0.5155 ]
[ 515.0361 +/- 0.3679      -520.6670 +/- 0.3537      1809.0959 +/- 0.5431 ]
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[ 775.6919 +/- 0.4432      -737.5429 +/- 0.3952      2035.8397 +/- 0.5929 ]
[ 909.5565 +/- 0.4585      -729.8090 +/- 0.3947      1994.4747 +/- 0.6184 ]
[ 1083.8982 +/- 0.4807     -770.8075 +/- 0.4040      2048.3106 +/- 0.5981 ]
[ 946.8685 +/- 0.4094     -649.8968 +/- 0.3684      1783.4655 +/- 0.5551 ]
[ -254.9348 +/- 0.4698      693.5400 +/- 0.4807      2500.8570 +/- 0.7506 ]
[ -90.2642 +/- 0.4545      304.4258 +/- 0.4580      2446.6143 +/- 0.7708 ]
[-1124.4642 +/- 0.5339      698.5667 +/- 0.5400      2783.9886 +/- 0.7211 ]
[-1401.0985 +/- 0.5667      708.0363 +/- 0.5587      2796.4152 +/- 0.7516 ]
[-1375.5616 +/- 0.5126      519.3038 +/- 0.4948      2509.8330 +/- 0.7464 ]
[ -838.5937 +/- 0.5872      384.4408 +/- 0.4939      2608.3674 +/- 0.8729 ]
[ 1006.1946 +/- 0.4587      314.6958 +/- 0.4336      2235.0703 +/- 0.7560 ]
[-1159.4584 +/- 0.6347      290.5681 +/- 0.5186      2754.0438 +/- 0.9486 ]
[-1166.6738 +/- 0.6353      295.6246 +/- 0.5175      2747.6821 +/- 0.9433 ]
[-1352.3933 +/- 0.7360      138.1295 +/- 0.5644      2957.7479 +/- 1.1443 ]
[-1618.2640 +/- 0.7248      79.7642 +/- 0.5443      2799.5727 +/- 0.9699 ]
[ 1097.2767 +/- 0.5079      -65.5456 +/- 0.5164      2713.4010 +/- 0.7329 ]
[ 1733.9457 +/- 0.6539     -239.5660 +/- 0.5973      3019.8530 +/- 0.8795 ]
[ 1666.4029 +/- 0.5944     -235.4983 +/- 0.5604      2804.7596 +/- 0.8758 ]
[ 867.4989 +/- 0.5408     -424.2799 +/- 0.5507      2912.9840 +/- 0.7277 ]
[ 325.5279 +/- 0.4941     -243.6813 +/- 0.5077      2647.0761 +/- 0.9187 ]
[ -311.6207 +/- 0.5786     -178.0414 +/- 0.5715      3057.5024 +/- 0.7017 ]
[ -881.1033 +/- 0.5565     -250.3146 +/- 0.4982      2631.9413 +/- 0.8212 ]
[-1346.0148 +/- 0.6135     -217.6622 +/- 0.4948      2489.6916 +/- 0.8490 ]
[-1262.9949 +/- 0.6001     -630.1898 +/- 0.5219      2511.0217 +/- 0.8423 ]
[-1376.9175 +/- 0.6506     -414.4323 +/- 0.5170      2499.3560 +/- 0.9134 ]
[-1289.8512 +/- 0.7027     -441.7028 +/- 0.5421      2631.8528 +/- 0.9870 ]
[-1269.6604 +/- 0.6453     -703.1597 +/- 0.5551      2804.3453 +/- 0.7141 ]
[ -104.1664 +/- 0.5313     -684.1857 +/- 0.5216      2758.9432 +/- 0.6078 ]
[ 923.4583 +/- 0.4822     -382.9956 +/- 0.5052      2597.0398 +/- 0.6602 ]
[ 1385.6223 +/- 0.4599     -313.9669 +/- 0.4653      2312.3259 +/- 0.6183 ]
```

```
[ 1618.2382 +/- 0.5740    -1039.2031 +/- 0.5729    2789.6523 +/- 0.8135 ]
[ 1676.7745 +/- 0.5857    -1002.4781 +/- 0.5819    2827.9673 +/- 0.8159 ]
[ 1686.9857 +/- 0.5857    -1091.1044 +/- 0.5588    2719.6019 +/- 0.8639 ]
[ 1683.7513 +/- 0.6332    -1188.5950 +/- 0.6177    2990.3606 +/- 0.8424 ]
[  371.1716 +/- 0.5162     -740.7664 +/- 0.5833    2800.5655 +/- 1.0217 ]
[  356.2236 +/- 0.5155     -734.3442 +/- 0.5644    2783.1735 +/- 0.9070 ]
```

## Camera 2 Intrinsics

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```
Focal length (pixels): [ 701.5422 +/- 0.1447    704.9695 +/- 0.1431 ]
Principal point (pixels):[ 624.5385 +/- 0.1296    362.0397 +/- 0.1301 ]
Radial distortion: [ -0.1733 +/- 0.0001    0.0273 +/- 0.0001 ]
```

## Position And Orientation of Camera 2 Relative to Camera 1

-----

```
Rotation of camera 2: [ -0.0016 +/- 0.0000    0.0173 +/- 0.0000    0.0008 +/- 0.0000 ]
Translation of camera 2 (meters):[ -119.5708 +/- 0.0149    0.0596 +/- 0.0133    -0.1969 +/- 0.0378 ]
```

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