**Quantitative data summary of included literature**

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| --- | --- | --- |
| **Study information** | **Sample size(N)** | **Results** |
| **Author** | **Year** | **Mean (SD)/°** | **ICC/r** | **RMSE(SD)/°** | **LOA** | **Bias (°)** | **Others** |
| Abbasi-Kesbi, et al. | 2018 | 1 | N/A | N/A | Movement1:Complementary filter:Elbow:Φ:0.92(0.89)Ψ:1.61(1.57)Θ:0.91(0.87)Wrist:Φ:0.88(0.83)Ψ:1.63(1.56)Θ:0.90(0.85)Modified complementary filer:Elbow:Φ:0.84(0.82)Ψ:1.59(1.56)Θ:0.73(0.71)Wrist:Φ:0.82(0.79)Ψ:1.61(1.55)Θ:0.75(0.71)Movement2:Complementary filter:Elbow:Φ:0.84(0.81)Ψ:1.53(1.5)Θ:1.05(1.01)Wrist:Φ:0.98(0.94)Ψ:1.65(1.62)Θ:1.01(0.97)Modified complementary filer:Elbow:Φ:0.66(0.65)Ψ:1.5(1.49)Θ:0.98(0.96)Wrist:Φ:0.78(0.75)Ψ:1.64(1.62)Θ:0.92(0.89) | N/A | N/A | N/A |
| Alarcon-Aldana, et al. | 2022 | 1 | N/A | N/A | 3.823.46 | N/A | N/A | N/A |
| Barreto, et al. | 2021 | 10 | N/A | N/A | Shoulder:Abd./Add.:9.86(3.90)Flex./Ext.:12.57(3.42)IR/ER:8.46(4.59)Elbow:Flex./Ext.:4.20(1.38)Wrist:Flex./Ext.:6.91(2.00) | N/A | N/A | CMCShoulder:Abd./Add.:0.88(0.12)Flex./Ext.:0.99(0.00)IR/ER:0.98(0.01)Elbow:Flex./Ext.:0.96(0.04)Wrist:Flex./Ext.:0.99(0.00) |
| Bessone, et al. | 2019 | 14 | Shoulder:Flex./Ext.:IMU:131.3(20.6)OMC:123.5(16.2)Abd./Add:IMU:96.3(8.6)OMC:89.4(11.7)Elbow:Flex./Ext.IMU:142.2(17.1)OMC:120(9.5)Wrist:Flex./Ext.IMU:123.1(18.6)OMC:104.3(21.2)U/R devi.:IMU:51.6(12.2)OMC:39.1(8.4) | Shoulder:Abd./Add.:0.796Flex./Ext.:0.782Elbow:Flex./Ext.:0.655Wrist:Flex./Ext.:0.872Ulnar deviation:0.26 | Shoulder:Abd./Add.:10.9Flex./Ext.:14.6Elbow:Flex./Ext.:27.1Wrist:Flex./Ext.:17.6Ulnar deviation:21.2 | N/A | Shoulder:Abd./Add.:-7.0±17.1Flex./Ext.:-7.8±25.0Elbow:Flex./Ext.:-22.1±32.0Wrist:Flex./Ext.:-18.8±20.3Ulnar deviation:-12.4±25.3 | N/A |
| Boddy, et al. | 2019 | 10 | Shoulder:IR/ER:Fastball:IMU:156(5)OMC:167(2)Off-speed:IMU:157(3)OMC:168(3) | Shoulder:IR/ER:Fastball:0.71Off-speed:0.784 | N/A | N/A | N/A | N/A |
| Callejas-Cuervo, et al. | 2016 | 1 | N/A | N/A | 2.442.122.28 | N/A | N/A | N/A |
| Camp. et al. | 2021 | 10 | N/A | N/A | 1.2-8.1 | N/A | N/A | N/A |
| Chan, et al. | 2022 | 19 | Shoulder:Flex.:IMU:92.4(6.65)OMC:87.2(7.25)Ext.:IMU:34(7.43)OMC:36.58(7.84)Abd./Add:IMU:92.42(4.48)OMC:84.87(6.19)IR/ER:IMU:58.56(17.8)OMC:52.44(15.2) | N/A | Flex.:7.62Ext.:5.04ER.:10.08Abd.:8.75 | Lower LOA:Flex.:-16.41[-21.2,-11.61]Ext.:-2.29[-10.01,-6.15]ER.:-22.27[-29.41,-15.13]Abd.:-16.45[-20.26,-12.64]Upper LOA:Flex.:6.0[1.21,10.8]Ext.:11.31[7.45,15.17]ER.:10.03[2.09,17.17]Abd.:1.35[-2.46,5.16] | Flex.-5.20Ext.:2.58ER.:-6.12Abd.:-7.55 | R2Flex.0.44Ext.:0.69ER.:0.79Abd.:0.46 |
| Chapman, et al. | 2019 | 10 | N/A | N/A | N/A | N/A | N/A | R2Flex.:0.96068Abd.:0.96482IR/ER:0.89585 |
| Chen, et al. | 2020 | 14 | N/A | N/A | Arm elevation:Slow transfer rate:Comp. w/o bias:1.9(1.4)Comp. w/ bias:1.4(0.9)KF:1.7(1.2)KF w/ bias:1.0(0.6)Medium transfer rate:Comp. w/o bias:2.1(1.2)Comp. w/ bias:1.6(0.9)KF:1.9(1.1)KF w/ bias:1.1(0.6)Fast transfer rate:Comp. w/o bias:2.4(1.3)Comp. w/ bias:1.6(0.8)KF:2.1(1.2)KF w/ bias:1.2(0.5) | N/A | N/A | N/A |
| Choo, et al. | 2022 | 7 | N/A | N/A | Stationary walkElbowFlex./Ext.:3.40(2.15)ShoulderFlex./Ext.:1.90(0.80)Abd./Add.:7.14(2.97)Distance walkElbowFlex./Ext.:2.04(1.48)ShoulderFlex./Ext.:1.12(0.65)Abd./Add.:5.36(3.16)Stationary jogElbowFlex./Ext.:3.89(2.96)ShoulderFlex./Ext.:1.94(1.53)Abd./Add.:5.97(3.80)Distance jogElbowFlex./Ext.:1.92(1.00)ShoulderFlex./Ext.:1.78(1.16)Abd./Add.:5.70(2.57)Stationary floorball wrist shotElbowFlex./Ext.:2.81(2.18)ShoulderFlex./Ext.:2.23(1.97)Abd./Add.:11.85(10.24)Moving wrist shotElbowFlex./Ext.:3.20(1.75)ShoulderFlex./Ext.:1.99(1.12)Abd./Add.:15.15(9.32) | Stationary walkElbowFlex./Ext.:-16.2[-42.55,10.15]ShoulderFlex./Ext.:4.04[-10.42,18.50]Abd./Add.:9.07[-20.59,38.73]Distance walkElbowFlex./Ext.:-21.17[-35.47,-6.88]ShoulderFlex./Ext.:7.26[-3.49,18.01]Abd./Add.:11.10[-22.63,44.82]Stationary jogElbowFlex./Ext.:-15.06[-68.01,37.90]ShoulderFlex./Ext.:2.61[-11.87,17.09]Abd./Add.:12.16[-15.39,39.72]Distance jogElbowFlex./Ext.:-12.22[-28.02,3.57]ShoulderFlex./Ext.:3.54[-8.31,15.39]Abd./Add.:9.80[-22.24,41.85]Stationary floorball wrist shotElbowFlex./Ext.:-20.34[-40.53,-0.15]ShoulderFlex./Ext.:1.92[-23.74,27.58]Abd./Add.:-7.52[-69.77,54.72]Moving wrist shotElbowFlex./Ext.:-20.62[-41.82,0.57]ShoulderFlex./Ext.:-1.42[-26.81,23.98]Abd./Add.:2.88[-61.27,67.03] | N/A | R2Stationary walkElbowFlex./Ext.:0.96ShoulderFlex./Ext.:0.80Abd./Add.:0.77Distance walkElbowFlex./Ext.:0.91ShoulderFlex./Ext.:0.59Abd./Add.:0.66Stationary jogElbowFlex./Ext.:0.85ShoulderFlex./Ext.:0.82Abd./Add.:0.79Distance jogElbowFlex./Ext.:0.94ShoulderFlex./Ext.:0.88Abd./Add.:0.87Stationary floorball wrist shotElbowFlex./Ext.:0.84ShoulderFlex./Ext.:0.76Abd./Add.:0.58Moving wrist shotElbowFlex./Ext.:0.85ShoulderFlex./Ext.:0.91Abd./Add.:0.50 |
| Contreras-Gonzalez, et al. | 2020 | 9 | N/A | N/A | Abd./Add.:1.89Flex./Ext.:2.30Horiz. Add.:2.23Rotation:1.51 | N/A | N/A | N/A |
| Digo, et al. | 2022 | 6 | N/A | N/A | Shoulder elevation:2.4(1.1)Elbow Flex./Ext.:3.5(1.1) | N/A | N/A | N/A |
| Dufour, et al. | 2021 | 11 | N/A | N/A | Shoulder elevation:Low difficulty:2.18(0.85)High difficulty:2.06(1.23) | N/A | N/A | AccuracyShoulder elevation:Low difficulty:98.7%(0.5%)High difficulty:98.7%(0.7%) |
| Erika, et al. | 2019 | 20 | N/A | N/A | PSUP:7.34THFF:2.12FTAP:1.51 | N/A | N/A | R2PSUP:0.949THFF:0.987FTAP:0.927 |
| Ertzgaard, et al. | 2016 | 10 | N/A | ConeShoulder:Flex./Ext.0.952Abd./Add.:0.879ER/IR:0.943Elbow:Flex.:0.984Prona./Supina.:0.682ThrowShoulder:Flex./Ext.0.975Abd./Add.:0.817ER/IR:0.905Elbow:Flex.:0.845Prona./Supina.:0.783CT1Shoulder:Flex./Ext.0.902Abd./Add.:0.949ER/IR:0.799Elbow:Flex.:0.914Prona./Supina.:0.792CT2Shoulder:Flex./Ext.0.943Abd./Add.:0.946ER/IR:0.768Elbow:Flex.:0.888Prona./Supina.:0.808 | N/A | N/A | N/A | N/A |
| Esfahani, et al. | 2018 | 1 | N/A | N/A | Flex.(45)Roll angle:3.21Pitch angle:2.84Yaw angle:3.53Flex.(90)Roll angle:3.1Pitch angle:2.5Yaw angle:3.38Flex.(135)Roll angle:2.69Pitch angle:2.09Yaw angle:2.97Flex.(180)Roll angle:2.78Pitch angle:2.43Yaw angle:3.1Ext.Roll angle:3.1Pitch angle:2.15Yaw angle:2.92Abd.(45)Roll angle:2.11Pitch angle:1.75Yaw angle:3.73Abd.(90)Roll angle:2.79Pitch angle:3.04Yaw angle:3Abd.(135)Roll angle:3.5Pitch angle:2.34Yaw angle:3.74Abd.(180)Roll angle:3.5Pitch angle:2.79Yaw angle:3.61IR/ERRoll angle:2.94Pitch angle:3.15Yaw angle:3.86 | N/A | N/A | R2Flex.(45)Roll angle:0.96Pitch angle:0.97Yaw angle:0.94Flex.(90)Roll angle:0.99Pitch angle:0.99Yaw angle:0.97Flex.(135)Roll angle:0.98Pitch angle:0.96Yaw angle:0.95Flex.(180)Roll angle:0.97Pitch angle:0.98Yaw angle:0.95Ext.Roll angle:0.99Pitch angle:0.97Yaw angle:0.97Abd.(45)Roll angle:0.96Pitch angle:0.95Yaw angle:0.95Abd.(90)Roll angle:0.97Pitch angle:0.95Yaw angle:0.97Abd.(135)Roll angle:0.99Pitch angle:0.97Yaw angle:0.95Abd.(180)Roll angle:0.97Pitch angle:0.95Yaw angle:0.98IR/ERRoll angle:0.96Pitch angle:0.93Yaw angle:0.94 |
| Fantozzi, et al. | 2016 | 8 | N/A | N/A | Front-crawl swimmingShoulderFlex./Ext.:5(4,8)Abd./Add.:7(5,9)IR/ER:7(5.8)ElbowFlex./Ext.:15(12,17)Prona./Supin:10(7,11)WristFlex./Ext.:5(4,5)Radial–ulnar:3(2,4)Breaststroke swimmingShoulderAbd./Add.:5(3,6)IR/ER:3(3,4)ElbowFlex./Ext.:8(5,10)Prona./Supin:6(5,10)WristFlex./Ext.:5(4,7)Radial–ulnar:4(3,5) | N/A | N/A | CMCFront-crawl swimmingShoulderFlex./Ext.:0.99Abd./Add.:0.97IR/ER:0.99ElbowFlex./Ext.:0.95Prona./Supin:0.93WristFlex./Ext.:0.95Radial–ulnar:0.9Breaststroke swimmingShoulderAbd./Add.:0.99IR/ER:0.99ElbowFlex./Ext.:0.98Prona./Supin:0.97WristFlex./Ext.:0.98Radial–ulnar:0.93 |
| Fischer, et al. | 2021 | 10 | Flex./Ext.:Marker on skin:IMU:101.4(29)OMC:99.8(14.5)Marker on sensorIMU:101.4(29)OMC:122.5(27.1)U/RMarker on skinIMU:59.1(12.5)OMC:47.7Marker on sensorIMU:59.1(12.5)IMU:57.3(8.7) | N/A | Flex./Ext.IMU vs. OMC1:8.3(2.5)IMU.vs. OMC2:15.3(4.7)Radial-ulnarMU vs. OMC1:9.9(3.2)IMU.vs. OMC2:8.2(2.3) | N/A | N/A | MADFlex./Ext.IMU vs. OMC1:8.2(4.0)IMU.vs. OMC2:23.0(8.8)Radial-ulnarMU vs. OMC1:17.3(8.0)IMU.vs. OMC2:11.1(5.1) |
| Goreham, et al. | 2022 | 15 | N/A | S-EFE:0.44S-SAA:0.14 S-SFE:0.13 S-SIER:0.33HBP-EFE:0.64 HBP-SAA:0.47 HBP-SFE:0.40 HBP-SIER:0.16HCS-EFE:0.25 HCS-SAA:0.23 HCS-SFE:0.39 HCS-SIER:0.18HTH-EFE:0.47 HTH-SAA:0.85 HTH-SFE:0.21 HTH-SIER:0.36 | N/A | N/A | N/A | N/A |
| Guignard, et al. | 2021 | 1 | N/A | Right elbowFlex./Ext.:0.979[0.978,0.980]1. S:0.979[0.978,0.980]

Walking:0.981[0.980,0.981]Crawl:0.986[0.985,0.987]Rowing:0.985[0.985,0.986]Left elbowFlex./Ext.:0.897[0.893,0.900]P-S:0.988[0.988,0.989]Walking:0.949[0.948,0.951]Crawl:0.866[0.858,0.873]Rowing:0.946[0.944,0.948] | Right elbowFlex./Ext.:8.23P-S:9.36Walking:5.98Crawl:5.60Rowing:6.53Left elbowFlex./Ext.:16.28P-S:7.24Walking:9.76Crawl:13.38Rowing:12.46 | N/A | N/A | N/A |
| Henschke, et al. | 2022 | 24 | Shoulder:Flex./Ext.IMU:170.4(21.4)OMC:195.1(18.9)Abd./Add.IMU:155.2(19.9)OMC:194(24.9)IR/ER:IMU:72.2(15.6)OMC:122.9(36.9) | Abd.:0.048Add.:0.534H-F:0.727H-E:0.296V-F:0.522V-E:0.369ER:0.040IR:0.208 | Abd.:12.2Add.:12.8H-F:13.0H-E:9.7V-F:14.0V-E:17.9ER:10.7IR:10.4 | Abd.:[11.9,84.5]Add.:[-31.8,24.8]H-F:[-23.5,26.0]H-E:[-22.4,28.4]V-F:[-16.0,39.2]V-E:[-19.0,49.5]ER:[-7.6,59.3]IR:[10.1,54.1] | Abd.:48.2Add.:-3.5H-F:1.2H-E:3.0V-F:11.6V-E:15.3ER:25.9IR:32.1 | N/A |
| Hubaut, et al. | 2022 | 10 | N/A | N/A | N/A | Yaw angle;[-3.180,3.628]Pitch angle:[-2.397,2.676]Roll angle:[-4.474,2.745] | Yaw angle:0.224(2.1)Pitch angle:0.139(1.599)Roll angle:-0.864(0.237) | R2Yaw angle:0.976(0.028)Pitch angle:0.924(0.092)Roll angle:0.951(0.084) |
| Humadi, et al. | 2021 | 10 | N/A | N/A | PackingElbow Flex.Right:4.5(4.7)Left:6.4(6.5)ShoulderFlex.Right:5.2(2.9)Left:5.1(3.7)Add.Right:4.2(3.7)Left:3.47(2.2)Rot.Right:10.8(9.5)Left:7.9(5.9)Package inspectionElbow Flex.Right:7.0(3.0)Left:7.9(3.6)ShoulderFlex.Right:8.0(5.1)Left:7.4(5.4)Add.Right:4.1(2.2)Left:6.1(6.2)Rot.Right:6.8(6.8)Left:7.9(5.9)Reaching objectElbow Flex.Right:8.3(5.4)Left:9.9(2.9)ShoulderFlex.Right:8.5(6.3)Left:8.2(6.0)Add.Right:4.9(3.2)Left:5.0(3.2)Rot.Right7.6(18.9)Left:5.0(9.3) | N/A | N/A | N/A |
| Laidig, et al. | 2017 | 1 | N/A | N/A | N/A | N/A | N/A | Dtand. Dev.Flex./Ext.:3.43Pron./Supin.:6.63 |
| Ligorio, et al. | 2017 | 15 | N/A | N/A | ElbowFlex./ExtLess than 4 | N/A | N/A | N/A |
| Ligorio, et al. | 2020 | 10 | N/A | ShoulderFlex./Ext.:0.96Abd./Add.:0.93IR.ER:0.92ElbowFlex./Ext.:0.95Carrying angle:0.91Prona./Supina.:0.94WristFlex.Ext.:0.98Abd./Add.:0.97IR/ER:0.97 | N/A | N/A | N/A | N/A |
| Lin, et al. | 2021 | 13 | N/A | N/A | Roll angleFlex.:2.87±0.85Abd.:4.40±1.14Ext.:4.14±1.31ER:3.08±2.63IR:3.01±1.29Pitch angleFlex.:1.62±0.77Abd.:1.11±0.35Ext.:1.64±0.63ER:1.34±0.38IR:1.40±0.65Yaw angleFlex.:3.09±1.08Abd.:4.88±1.70Ext.:4.91±1.79ER:3.36±2.56IR:2.81±1.39 | N/A | N/A | SEMFlex.:3.62Abd.:2.51Ext.:0.95ER:1.86IR:1.91 |
| Marta, et al. | 2020 | 2 | N/A | Flex./Ext.:0.994Abd./Add.:0.991 | Flex./Ext.:5.6Abd./Add.:4.7 | N/A | N/A | N/A |
| Mavor, et al. | 2020 | 20 | N/A | N/A | Right shoulderFlex./Ext.:11.0(6.46)Abd./Add.:8.79(3.16)Axial Rot,11.5(6.62)Left shoulderFlex./Ext.:13.4(8.44)Abd./Add.:10.6(3.52)Axial Rot.:15.1(10.9)Right elbowFlex./Ext.:10.6(4.45)Abd./Add.:11.8(4.06)Axial Rot.:16.7(7.25)Left elbowFlex./Ext.:11.3(5.36)Abd./Add.:11.5(3.85)Axial Rot.:15.2(6.72) | N/A | N/A | N/A |
| Mihcin,et al. | 2019 | 1 | N/A | N/A | Shoulder flex.:0.66Elbow flex.:0.51 | N/A | N/A | N/A |
| Morrow, et al. | 2017 | 6 | N/A | N/A | Shoulder elevation:6.8(2.7)Elbow flex.:8.2(2.8) | N/A | N/A | N/A |
| Muller, et al. | 2017 | 1 | N/A | N/A | Proposed algorithmFlex./Ext.:2.7P-S:3.8Manual alignmentFlex./Ext.:3.8P-S:8.7 | N/A | N/A | N/A |
| Ohberg, et al. | 2019 | 20 | N/A | N/A | N/A | N/A | Finger to nose task:0.25-1.1Drinking task:0.45-0.84 | N/A |
| Pedro, et al. | 2021 | 18 | N/A | N/A | ShoulderFlex./Ext.:6.1Abd./Add.:3.5IR/ER:4.1ElbowFlex./Ext.:1.5Prona./Supina.:13.1WristFlex./Ext.:6.3 | N/A | N/A | CMCShoulderFlex./Ext.:0.95Abd./Add.:0.89IR/ER:0.99ElbowFlex./Ext.:0.99Prona./Supina.:0.79WristFlex./Ext.:0.98 |
| Picerno, et al. | 2019 | 14 | Shoulder:IR/ER:IMU:42.3(8.1)OMC:44.9(8.9)Elbow:Flex./Ext.IMU:108.1(16.2)OMC:109.3(13.9)P/SIMU:117.3(15.5)OMC:119.5(14.1) | N/A | ShoulderAxial rotation:1.8±1.4Arm elevationFrontal plane:4.4±4.1Scapular plane:2.5±1.7Sagittal plane:2.3±2.5ElbowFlex./Ext.:1.9±2.6P-S:2.9±1.6 | ShoulderAxial rotation:-2.6[-9.0,3.9]Arm elevationFrontal plane:-11.7[-24.7,1.3]Scapular plane:-8.6[-19.9,2.7]Sagittal plane:-1.9[-13.0,9.2]ElbowFlex./Ext.:-1.2[-10.6,8.3]P-S:-2.2[-15.0,10.7] | N/A | R2ShoulderAxial rotation:0.995±0.009Arm elevationFrontal plane:0.997±0.003Scapular plane:0.997±0.003Sagittal plane:0.997±0.003ElbowFlex./Ext.:0.999±0.002P-S:0.997±0.004 |
| Poitras, et al. | 2019 | 16 | N/A | Flex.60 degree:0.96890 degree:0.998120 degree:0.997Abd.60 degree:0.99890 degree:0.999120 degree:0.999 | Flex.60 degree:5.17(2.81)90 degree:4.67(2.95)120 degree:6.21(3.90)Abd.60 degree:2.77(1.28)90 degree:3.75(2.86)120 degree:4.92(3.02) | N/A | N/A | N/A |
| Robert-Lachaine, et al. | 2020 | 5 | N/A | N/A | ShoulderX axis:6.0Z axis:4.9Y axis:10.3ElbowZ axis:13.4X axis:9.7Y axis:12.3WristZ axis:8.9X axis:6.6Y axis:9.6 | ShoulderX axis:-0.6±9.9Z axis:1.8±8.3Y axis:-4.3±14.0ElbowZ axis:-11.7±9.5X axis:0.1±14.1Y axis:8.4±15.2WristZ axis:5.6±9.6X axis:3.9±8.8Y axis:-0.9±11.8 | N/A | CMCShoulderX axis:0.98Z axis:0.98Y axis:0.85ElbowZ axis:0.91X axis:0.85Y axis:0.87WristZ axis:0.81X axis:0.78Y axis:0.76 |
| Robert-Lachaine, et al. | 2016 | 12 | N/A | N/A | ShoulderX axis:2.9Z axis:3.0Y axis:2.5ElbowZ axis:2.9X axis:2.0Y axis:2.6WristZ axis:3.8X axis:2.8Y axis:3.6 | ShoulderX axis:-0.1±5.2Z axis:-0.9±4.2Y axis:-0.7±3.8ElbowZ axis:0.3±5.2X axis:0.3±3.7Y axis:0.6±4.8WristZ axis:-1.0±6.9X axis:-0.4±5.1Y axis:-1.3±5.9 | N/A | CMCShoulderX axis:1.00Z axis:0.99Y axis:0.99ElbowZ axis:0.99X axis:0.98Y axis:0.99WristZ axis:0.96X axis:0.95Y axis:0.92 |
| Robert-Lachaine, et al. | 2017 | 12 | N/A | N/A | N/A | N/A | N/A | SEMShoulderX axis:1.5Z axis:1.5Y axis:2.7ElbowZ axis:2.1X axis:1.3Y axis:3.5WristZ axis:1.8X axis:1.2Y axis:1.8 |
| Ruiz-Malagon, et al. | 2022 | 15 | N/A | N/A | 100HzFlex./Ext.:8.66Pron./Sup.:8.53200HzFlex./Ext.:7.53Pron./Sup.:7.66300HzFlex./Ext.:5.76Pron./Sup.:6.66 | N/A | N/A | Lin’s CCC100HzFlex./Ext.:0.81Pron./Sup.:0.83200HzFlex./Ext.:0.85Pron./Sup.:0.86300HzFlex./Ext.:0.89Pron./Sup.:0.86 |
| Schall, et al. | 2016 | 6 | N/A | N/A | N/A | N/A | N/A | SlopeShoulder:-9.38 |
| Sers, et al. | 2020 | 8 | N/A | N/A | Slow movement:3.2(1.1)Fast movement:2.9(1.5) | 3.35(-0.68,7.39) | N/A | N/A |
| Shepherd, et al. | 2017 | 4 | N/A | N/A | N/A | N/A | N/A | Error difference-4.03±1.58 |
| Slade, et al. | 2022 | 5 | N/A | ShoulderFlex.:0.972Abd.:0.871Rot.:0.782Elbow flex,:0.987Wrist flex.:0.924 | ShoulderFlex.:6.9±4.2Abd.:5.2±0.8Rot.:7.9±2.6Elbow flex,:5.2±2.1Wrist flex.:5.7±2.1 | N/A | N/A | N/A |
| Truppa, et al. | 2021A | 10 | N/A | ShoulderFlex./Ext.:0.99±0.01Abd./Add.:0.99±0.01IR/ER.:0.98±0.01ElbowFlex./Ext.:0.97±0.05Abd./Add.:0.92±0.03IR/ER.:0.95±0.03WristFlex./Ext.:0.96±0.05Abd./Add.:0.99±0.01IR/ER.:0.91±0.07 | N/A | N/A | N/A | N/A |
| Truppa, et al. | 2021B | 5 | N/A | ShoulderFlex./Ext.:0.99±0.01Abd./Add.:0.98±0.02IR/ER.:0.98±0.02ElbowFlex./Ext.:0.88±0.11Abd./Add.:0.94±0.04IR/ER.:0.96±0.01WristFlex./Ext.:0.99±0.01Abd./Add.:0.86±0.16IR/ER.:0.88±0.12 | N/A | N/A | N/A | N/A |
| Truppa, et al. | 2022 | 10 | N/A | ShoulderFlex./Ext.:0.88±0.21Abd./Add.:0.97±0.03IR/ER.:0.80±0.30ElbowFlex./Ext.:0.96±0.02Abd./Add.:0.89±0.06IR/ER.:0.87±0.09WristFlex./Ext.:0.91±0.20Abd./Add.:0.96±0.02IR/ER.:0.91±0.16 | ShoulderFlex./Ext.:3.20±0.98Abd./Add.:3.85±2.35IR/ER.:6.90±4.01ElbowFlex./Ext.:2.96±0.95Abd./Add.:3.49±1.02IR/ER.:6.79±2.31WristFlex./Ext.:4.82±2.36Abd./Add.:4.27±2.17IR/ER.:8.41±3.73 | N/A | N/A | N/A |
| Wells, et al. | 2019 | 9 | Elbow:Flex./Ext.:IMU:144.0(8.2)OMC:145.2(7.7) | .Elbow:Flex./Ext.: 0.966 | N/A | N/A | N/A | N/A |
| Wirth, et al. | 2019 | 10 | Flex./Ext.Marker on skinIMU:126(18.85)OMC:136(17.98)Marker on sensorIMU:126(18.85)OMC:141(20.64)U/RMarker on skinIMU:50.48(9.04)OMC:51.05(8.44)Marker on sensorIMU:50.48(9.04)OMC:49.91(8.44) | N/A | Flex./Ext.:-9.94(-20.84,0.96)Radial-ulnar dev.:-0.64(-6.10,4.82) | N/A | N/A | MADFlex./Ext.:10.37±4.22Radial-ulnar dev.:2.42±1.19 |
| Wu, et al. | 2022 | 7 | N/A | ShoulderFlex./Ext.Fast:0.92Slow:0.95Abd./Add.Fast:0.87Slow:0.86IR/ERFast:0.87Slow:0.89ElbowFlex./Ext.Fast:0.86Slow:0.90P-SFast:0.90Slow:0.88 | ShoulderFlex./Ext.Fast：7.5Slow：8.8Abd./Add.Fast：5.0Slow：6.8IR/ERFast：9.0Slow：8.2ElbowFlex./Ext.Fast12.3Slow:12.3P-SFast:9.3Slow:9.5 | ShoulderFlex./Ext.Fast:25.9±6.4Slow:17.9±11.9Abd./Add.Fast:-12.6±16.0Slow:-11.3±13.6IR/ERFast:-13.0±15.9Slow:-11.5±17.7ElbowFlex./Ext.Fast:27.8±18.8Slow:27.1±16.1P-SFast:8.3±6.9Slow:6.6±7.2 | N/A | R2ShoulderFlex./Ext.Fast:0.96Slow:0.96Abd./Add.Fast:0.80Slow:0.81IR/ERFast:0.79Slow:0.79ElbowFlex./Ext.Fast:0.95Slow:0.94P-SFast:0.81Slow:0.81 |

N/A: Not applicable