

| Student number | point total | req total | extra total | R1 Joint pos (1p) | R2 Joint rot (2p) | R3 Joint coord frame (2p) | R4 SSD (4p) | R5 normal skinning (1p) | mod | notes / wtf / ... | SSD on GPU (2p) | animation (3p) | dual quaternion skinning (4p) | wrist joints (5p) | IK (8p) | other skinned models (5p) | other (points) | other (what) |
|----------------|-------------|-----------|-------------|-------------------|-------------------|---------------------------|-------------|-------------------------|-----|---|-----------------|----------------|-------------------------------|-------------------|---------|---------------------------|----------------|--------------|
| 145525 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 210984 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 218096 | 5 | 5 | 0 | 1 | 2 | 2 | 0 | 0 | | | | | | | | | | |
| 292986 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 351526 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 353692 | 18.5 | 9.5 | 9 | 1 | 2 | 2 | 4 | 0.5 | | R5 normal unnormalized. IK points for effort. | | 2 | | 5 | | 2 | | |
| 362418 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 424851 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 425575 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 426419 | 3 | 3 | 0 | 1 | 2 | 0 | 0 | 0 | | | | | | | | | | |
| 427230 | 9.5 | 9.5 | 0 | 1 | 2 | 2 | 4 | 0.5 | | R5 normals unnormalized. | | | | | | | | |
| 428925 | 5 | 5 | 0 | 1 | 2 | 2 | 0 | 0 | | | | | | | | | | |
| 429461 | 9.5 | 9.5 | 0 | 1 | 2 | 2 | 4 | 0.5 | | R5 normals unnormalized. | | | | | | | | |
| 431006 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 432788 | 17 | 10 | 7 | 1 | 2 | 2 | 4 | 1 | | Good job! | | 2 | | 5 | | | | |
| 437631 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 474898 | 5 | 5 | 0 | 1 | 2 | 2 | 0 | 0 | | | | | | | | | | |
| 475389 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 476883 | 9.5 | 9.5 | 0 | 1 | 2 | 2 | 4 | 0.5 | | R5 normal unnormalized. | | | | | | | | |
| 478632 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 506041 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 506287 | 14.5 | 9.5 | 5 | 1 | 2 | 2 | 4 | 0.5 | | R5: Normal vectors not normalized. | | 2 | 3 | | | | | |
| 520085 | 9 | 9 | 0 | 1 | 2 | 2 | 4 | 0 | | | | | | | | | | |
| 525491 | 10 | 10 | 0 | 1 | 2 | 2 | 4 | 1 | | | | | | | | | | |
| 525750 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 525941 | 5 | 5 | 0 | 1 | 2 | 2 | 0 | 0 | | | | | | | | | | |
| 527677 | 5 | 5 | 0 | 1 | 2 | 2 | 0 | 0 | | | | | | | | | | |
| 530185 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 530648 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 552794 | 12 | 10 | 2 | 1 | 2 | 2 | 4 | 1 | | Solid! | | 2 | | | | | | |
| 552969 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 565710 | 9.5 | 9.5 | 0 | 1 | 2 | 2 | 4 | 0.5 | | R5: Normal vectors not normalized. | | | | | | | | |
| 570116 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 576149 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 577122 | 11.5 | 9.5 | 2 | 1 | 2 | 2 | 4 | 0.5 | | R5: Normal vectors not normalized. | | 2 | | | | | | |
| 585240 | 5 | 5 | 0 | 1 | 2 | 2 | 0 | 0 | | | | | | | | | | |
| 586029 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 586333 | 12 | 10 | 2 | 1 | 2 | 2 | 4 | 1 | | Good job! | | 2 | | | | | | |
| 587549 | 12 | 10 | 2 | 1 | 2 | 2 | 4 | 1 | | Good job! | | 2 | | | | | | |
| 589796 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 589929 | 9.5 | 9.5 | 0 | 1 | 2 | 2 | 4 | 0.5 | | R5 normals unnormalized. | | | | | | | | |
| 590743 | 5 | 5 | 0 | 1 | 2 | 2 | 0 | 0 | | | | | | | | | | |
| 592864 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 592929 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 595997 | 11.5 | 9.5 | 2 | 1 | 2 | 2 | 4 | 0.5 | | R5: Normal vectors not normalized. | | 2 | | | | | | |
| 596174 | 0 | 0 | 0 | | | | | | | | | | | | | | | |

| Student number | point total | req total | extra total | R1 Joint pos (1p) | R2 Joint rot (2p) | R3 Joint coord frame (2p) | R4 SSD (4p) | R5 normal skinning (1p) | mod | notes / wtf / ... | SSD on GPU (2p) | animation (3p) | dual quaternion skinning (4p) | wrist joints (5p) | IK (8p) | other skinned models (5p) | other (points) | other (what) |
|----------------|-------------|-----------|-------------|-------------------|-------------------|---------------------------|-------------|-------------------------|-----|--|-----------------|----------------|-------------------------------|-------------------|---------|---------------------------|----------------|--------------|
| 596747 | 5 | 5 | 0 | 1 | 2 | 2 | 0 | 0 | | | | | | | | | | |
| 596815 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 597322 | 9.5 | 9.5 | 0 | 1 | 2 | 2 | 4 | 0.5 | | R5 normal unnormalized. | | | | | | | | |
| 603025 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 604244 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| | | | | | | | | | | R5 transforming normals like a point. Set w component to 0! This causes the difference you are intersted in. | | | | | | | | |
| 604312 | 9.5 | 9.5 | 0 | 1 | 2 | 2 | 4 | 0.5 | | | | | | | | | | |
| 605560 | 9.5 | 9.5 | 0 | 1 | 2 | 2 | 4 | 0.5 | | R5 normals unnormalized. Same on GPU. | | | | | | | | |
| 605722 | 9.5 | 9.5 | 0 | 1 | 2 | 2 | 4 | 0.5 | | R5: Normal vectors not normalized. | | | | | | | | |
| 609265 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 614580 | 9.5 | 9.5 | 0 | 1 | 2 | 2 | 4 | 0.5 | | R5 normal unnormalized. | | | | | | | | |
| 618117 | 12 | 10 | 2 | 1 | 2 | 2 | 4 | 1 | | Good job! | 2 | | | | | | | |
| 635187 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 646655 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 646927 | 5 | 5 | 0 | 1 | 2 | 2 | 0 | 0 | | | | | | | | | | |
| 648530 | 9.5 | 9.5 | 0 | 1 | 2 | 2 | 4 | 0.5 | | R5 normals unnormalized. | | | | | | | | |
| | | | | | | | | | | R5 normal unnormalized. Wrists: I could not find the modified wrist skeleton file. | | | | | | | | |
| 648653 | 26.5 | 9.5 | 17 | 1 | 2 | 2 | 4 | 0.5 | | | 2 | 3 | 4 | | 8 | | | |
| 650227 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| | | | | | | | | | | R5: Normal vectors not normalized. | | | | | | | | |
| 650492 | 10.5 | 9.5 | 1 | 1 | 2 | 2 | 4 | 0.5 | | | 1 | | | | | | | |
| 652131 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| | | | | | | | | | | R5: Normal vectors not normalized. | | | | | | | | |
| 652144 | 9.5 | 9.5 | 0 | 1 | 2 | 2 | 4 | 0.5 | | | | | | | | | | |
| 652801 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 653101 | 12 | 10 | 2 | 1 | 2 | 2 | 4 | 1 | | | 2 | | | | | | | |
| 653460 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 653509 | 9.5 | 9.5 | 0 | 1 | 2 | 2 | 4 | 0.5 | | R5 normal unnormalized. | | | | | | | | |
| 653758 | 9.5 | 9.5 | 0 | 1 | 2 | 2 | 4 | 0.5 | | R5: Normal vectors not normalized. | | | | | | | | |
| 653897 | 11.5 | 9.5 | 2 | 1 | 2 | 2 | 4 | 0.5 | | R5: Normal vectors not normalized. | 2 | | | | | | | |
| | | | | | | | | | | R3 joint coordinate systems are not aligned with the joint rotation. R5 normals unnormalized. | | | | | | | | |
| 654579 | 8.5 | 8.5 | 0 | 1 | 2 | 1 | 4 | 0.5 | | | | | | | | | | |
| 655691 | 9.5 | 9.5 | 0 | 1 | 2 | 2 | 4 | 0.5 | | R5 normal unnormalized. | | | | | | | | |
| 656470 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| | | | | | | | | | | R3 coordinate frames incorret. R5 normals unnormalized. | | | | | | | | |
| 656991 | 8.5 | 8.5 | 0 | 1 | 2 | 1 | 4 | 0.5 | | | | | | | | | | |

| Student number | point total | req total | extra total | R1 Joint pos (1p) | R2 Joint rot (2p) | R3 Joint coord frame (2p) | R4 SSD (4p) | R5 normal skinning (1p) | mod | notes / wtf / ... | SSD on GPU (2p) | animation (3p) | dual quaternion skinning (4p) | wrist joints (5p) | IK (8p) | other skinned models (5p) | other (points) | other (what) |
|----------------|-------------|-----------|-------------|-------------------|-------------------|---------------------------|-------------|-------------------------|-----|--|-----------------|----------------|-------------------------------|-------------------|---------|---------------------------|----------------|--------------|
| 665131 | 9 | 9 | 0 | 1 | 2 | 2 | 4 | 0 | | R5 normals unnormalized and transformed like a point. (I notice that you reduce the translation) Set w component to 0! | | | | | | | | |
| 666253 | 11.5 | 9.5 | 2 | 1 | 2 | 2 | 4 | 0.5 | | R5: Normal vectors not normalized. | 2 | | | | | | | |
| 667171 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 672771 | 9 | 9 | 0 | 1 | 2 | 2 | 4 | 0 | | | | | | | | | | |
| 673987 | 12.5 | 9.5 | 3 | 1 | 2 | 2 | 4 | 0.5 | | R5: Normal vectors not normalized. | 2 | | 1 | | | | | |
| 675163 | 11 | 9.5 | 1.5 | 1 | 2 | 2 | 4 | 0.5 | | R5 transformed normal like a point. I see that you set translation to 0, but set w component to 0! Same on GPU. | 1.5 | | | | | | | |
| 675765 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 677721 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 689395 | 16 | 10 | 6 | 1 | 2 | 2 | 4 | 1 | | Good job! | 2 | | 4 | | | | | |
| 700436 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 705855 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 706003 | 9.5 | 9.5 | 0 | 1 | 2 | 2 | 4 | 0.5 | | R5: Normal vectors not normalized. | | | | | | | | |
| 706045 | 12 | 9 | 3 | 1 | 2 | 2 | 4 | 0 | | R5 normals unnormalized and transformed like a point. Same on GPU. | | 3 | | | | | | |
| 706443 | 9 | 9 | 0 | 1 | 2 | 2 | 4 | 0 | | | | | | | | | | |
| 706595 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 706919 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 707138 | 12 | 10 | 2 | 1 | 2 | 2 | 4 | 1 | | | 2 | | | | | | | |
| 707277 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 707316 | 9.5 | 9.5 | 0 | 1 | 2 | 2 | 4 | 0.5 | | R5 normals unnormalized. | | | | | | | | |
| 707620 | 9.5 | 9.5 | 0 | 1 | 2 | 2 | 4 | 0.5 | | R5: Normal vectors not normalized. | | | | | | | | |
| 708616 | 9.5 | 9.5 | 0 | 1 | 2 | 2 | 4 | 0.5 | | R5: Normal vectors not normalized. | | | | | | | | |
| 708988 | 10 | 10 | 0 | 1 | 2 | 2 | 4 | 1 | | | | | | | | | | |
| 709026 | 9.5 | 9.5 | 0 | 1 | 2 | 2 | 4 | 0.5 | | R5 normals unnormalized. | | | | | | | | |
| 709178 | 11 | 9.5 | 1.5 | 1 | 2 | 2 | 4 | 0.5 | | R5 normals unnormalized. Same on GPU. | 1.5 | | | | | | | |
| 709903 | 5 | 5 | 0 | 1 | 2 | 2 | 0 | 0 | | | | | | | | | | |
| 711111 | 12 | 9.5 | 2.5 | 1 | 2 | 2 | 4 | 0.5 | | R5 normals unnormalized. Same on GPU. Wrist extra: rotating wrist doesn't work. | 1.5 | | | 1 | | | | |

[illegible]

[illegible]

[illegible]

| Student number | point total | req total | extra total | R1 Joint pos (1p) | R2 Joint rot (2p) | R3 Joint coord frame (2p) | R4 SSD (4p) | R5 normal skinning (1p) | mod | notes / wtf / ... | SSD on GPU (2p) | animation (3p) | dual quaternion skinning (4p) | wrist joints (5p) | IK (8p) | other skinned models (5p) | other (points) | other (what) |
|----------------|-------------|-----------|-------------|-------------------|-------------------|---------------------------|-------------|-------------------------|-----|--|-----------------|----------------|-------------------------------|-------------------|---------|---------------------------|----------------|--------------|
| 1010138 | 0 | 0 | 0 | | | | | | | R5 normal unnormalized. Wrist doesn't rotate. | | 2 | | 1 | | | | |
| 1010921 | 12.5 | 9.5 | 3 | 1 | 2 | 2 | 4 | 0.5 | | Solid! | | | | | | | | |
| 1011166 | 10 | 10 | 0 | 1 | 2 | 2 | 4 | 1 | | R5 normal not normalized. SSD on gpu indexing wrongly for joints. Wrists dont move when moved, not full implementation. | | 1 | | 1 | | | | |
| 1015515 | 11.5 | 9.5 | 2 | 1 | 2 | 2 | 4 | 0.5 | | R5 normals unnormalized. | | | | | | | | |
| 1031418 | 9.5 | 9.5 | 0 | 1 | 2 | 2 | 4 | 0.5 | | R3 missing lines. R5 normal calculation incorrect. | | | | | | | | |
| 1034897 | 8 | 8 | 0 | 1 | 2 | 1 | 4 | 0 | | R5 normals unnormalized. | | | | | | | | |
| 1034907 | 9.5 | 9.5 | 0 | 1 | 2 | 2 | 4 | 0.5 | | | | | | | | | | |
| 100063675 | 5 | 5 | 0 | 1 | 2 | 2 | 0 | 0 | | R3 missing lines. R5 normals unnormalized. | | | | | | | | |
| 100065699 | 8.5 | 8.5 | 0 | 1 | 2 | 1 | 4 | 0.5 | | | | | | | | | | |
| 100077632 | 5 | 5 | 0 | 1 | 2 | 2 | 0 | 0 | | | | | | | | | | |
| 100080195 | 5 | 5 | 0 | 1 | 2 | 2 | 0 | 0 | | | | | | | | | | |
| 100082119 | 5 | 5 | 0 | 1 | 2 | 2 | 0 | 0 | | | | | | | | | | |
| 100083817 | 9 | 9 | 0 | 1 | 2 | 2 | 3 | 1 | | R4 you multiply whole transformation with the weight (also matrix component m33), causing the implicit conversion back to cartesian create the strange scaling effect. | | | | | | | | |
| 100084638 | 9.5 | 9.5 | 0 | 1 | 2 | 2 | 4 | 0.5 | | R5 transforming normal like a point. w component to 0! | | | | | | | | |
| 100085828 | 9.5 | 9.5 | 0 | 1 | 2 | 2 | 4 | 0.5 | | R5 normal accumulation doesn't start from 0. | | | | | | | | |
| 100087363 | 9.5 | 9.5 | 0 | 1 | 2 | 2 | 4 | 0.5 | | R5 normals unnormalized. No extras listed in readme, but you got hours spent on extras? | | | | | | | | |
| 100088595 | 9.5 | 9.5 | 0 | 1 | 2 | 2 | 4 | 0.5 | | R5 normal unnormalized. | | | | | | | | |
| 100088812 | 9.5 | 9.5 | 0 | 1 | 2 | 2 | 4 | 0.5 | | R5 normal unnormalized. | | | | | | | | |
| 100090114 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 100097625 | 9 | 9 | 0 | 1 | 2 | 2 | 4 | 1 | -1 | No solution file. Cannot build your assignment for grading without modifications. | | | | | | | | |

| Student number | point total | req total | extra total | R1 Joint pos (1p) | R2 Joint rot (2p) | R3 Joint coord frame (2p) | R4 SSD (4p) | R5 normal skinning (1p) | mod | notes / wtf / ... | SSD on GPU (2p) | animation (3p) | dual quaternion skinning (4p) | wrist joints (5p) | IK (8p) | other skinned models (5p) | other (points) | other (what) |
|----------------|-------------|-----------|-------------|-------------------|-------------------|---------------------------|-------------|-------------------------|-----|--|-----------------|----------------|-------------------------------|-------------------|---------|---------------------------|----------------|--------------|
| 100098349 | 8.5 | 8.5 | 0 | 1 | 2 | 2 | 3 | 0.5 | | R4 colour shouldn't completely change when rotated. R5 normal unnormalized. | | | | | | | | |
| 100119587 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| | | | | | | | | | | SSD on GPU crashes because of indexing aJoints1 and aJoints2 over their size of 4. Also, the calculation is slightly wrong, the shading doesn't match example. | | | | | | | | |
| 100126376 | 11 | 10 | 1 | 1 | 2 | 2 | 4 | 1 | | | 1 | | | | | | | |
| 100135985 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 100153873 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| | | | | | | | | | | SSD on gpu transforming normal like a point - for normals w component 0. This causes the difference. | | | | | | | | |
| 27028M | 11.5 | 10 | 1.5 | 1 | 2 | 2 | 4 | 1 | | | 1.5 | | | | | | | |
| 35564T | 10 | 10 | 0 | 1 | 2 | 2 | 4 | 1 | | | | | | | | | | |
| 46477D | 9 | 9 | 0 | 1 | 2 | 2 | 4 | 0 | | | 0 | | | | | | | |
| 68933B | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 81616N | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| 82085F | 5 | 5 | 0 | 1 | 2 | 2 | 0 | 0 | | | | | | | | | | |
| 83818L | 11.5 | 9.5 | 2 | 1 | 2 | 2 | 4 | 0.5 | | R5 normal unnormalized. | 2 | | | | | | | |
| k28342 | 0 | 0 | 0 | | | | | | | | | | | | | | | |
| k90993 | 9.5 | 9.5 | 0 | 1 | 2 | 2 | 4 | 0.5 | | R5 normals unnormalized. | | | | | | | | |