

Reviewer Assessment

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Ergonomic assessment of the da Vinci console in robot-assisted surgery

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Reviewers' Comments to Original Submission

Reviewer 1: Brigitte Vollmar

Feb 02, 2017

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|---|--------------|
| Reviewer Recommendation Term: | Accept |
| Overall Reviewer Manuscript Rating: | N/A |
| Custom Review Questions | |
| Is the subject area appropriate for you? | 3 |
| Does the title clearly reflect the paper's content? | 5 - High/Yes |
| Does the abstract clearly reflect the paper's content? | 4 |
| Do the keywords clearly reflect the paper's content? | 4 |
| Does the introduction present the problem clearly? | 4 |
| Are the results/conclusions justified? | 4 |
| How comprehensive and up-to-date is the subject matter presented? | 4 |
| How adequate is the data presentation? | 5 - High/Yes |
| Are units and terminology used correctly? | 4 |
| Is the number of cases adequate? | 3 |
| Are the experimental methods/clinical studies adequate? | 5 - High/Yes |
| Is the length appropriate in relation to the content? | 5 - High/Yes |
| Does the reader get new insights from the article? | 5 - High/Yes |
| Please rate the practical significance. | 4 |
| Please rate the accuracy of methods. | 4 |
| Please rate the statistical evaluation and quality control. | 5 - High/Yes |
| Please rate the appropriateness of the figures and tables. | 4 |
| Please rate the appropriateness of the references. | 4 |
| Please evaluate the writing style and use of language. | 5 - High/Yes |
| Please judge the overall scientific quality of the manuscript. | 4 |
| Are you willing to review the revision of this manuscript? | Yes |

Comments to Authors:

The present study addresses a clinically relevant problem, i.e. the non-ergonomic body posture during robot-assisted surgery by using the da Vinci console. The major findings are (i) trunk and in particular neck angles are not in the physiological range and potentially harmful. The range of armrest height adjustment is too small to provide optimal conditions for short and very tall individuals, while optics height adjustment range seems to be sufficient. The established 2D geometric model can be applied for further refinement of the da Vinci console. The study is accurately described and well performed. Noteworthy, intraobserver variability was assessed to cross check the reproducibility and accuracy of calculated angles. The authors are aware of the limitations of the study (low number of individuals studied, usage of only sagittal ergonomic information's, etc.) and provide their critical perspectives. Nevertheless, the study is of scientific value and contributes to the improvement of robot-assisted surgery.

Reviewer 2: Thomas Becker

Feb 09, 2017

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|---|--------|
| Reviewer Recommendation Term: | Accept |
| Overall Reviewer Manuscript Rating: | N/A |
| Custom Review Questions | |
| Is the subject area appropriate for you? | 2 |
| Does the title clearly reflect the paper's content? | 4 |
| Does the abstract clearly reflect the paper's content? | 4 |
| Do the keywords clearly reflect the paper's content? | 4 |
| Does the introduction present the problem clearly? | 4 |
| Are the results/conclusions justified? | 4 |
| How comprehensive and up-to-date is the subject matter presented? | 4 |
| How adequate is the data presentation? | 4 |
| Are units and terminology used correctly? | 4 |
| Is the number of cases adequate? | N/A |
| Are the experimental methods/clinical studies adequate? | 4 |
| Is the length appropriate in relation to the content? | 4 |
| Does the reader get new insights from the article? | 4 |
| Please rate the practical significance. | 3 |
| Please rate the accuracy of methods. | 4 |
| Please rate the statistical evaluation and quality control. | 4 |
| Please rate the appropriateness of the figures and tables. | 4 |
| Please rate the appropriateness of the references. | 4 |
| Please evaluate the writing style and use of language. | 4 |
| Please judge the overall scientific quality of the manuscript. | 3 |
| Are you willing to review the revision of this manuscript? | Yes |

Comments to Authors:

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