Gaze Gesture Based Human Robot Interaction for Laparoscopic Surgery

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Highlights

- A gaze contingent robotic laparoscope is presented.
- Bimanual tasks can be performed without the need for a camera assistant.
- Learned gaze gestures are used to control zooming, panning, and tilting.
- An online gaze calibration method is used to maintain gaze tracking accuracy.
- Comprehensive studies show significant improvements over using an assistant.