Kinect-Based Gesture Recognition for Robot Control

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Gesture recognition is a topic in computer science and language technology with the goal of interpreting human gestures via mathematical algorithms. In this paper we want to show, how to use gesture recognition to control a robot. Using a Kinect sensor, the system detects the motion of the human user and creats the skeletal image of the body. Coordinate Geometry and different approximation methods are used to calculate the angles between the bones connecting the joints. In our project inverse kinematics makes use of the kinematics equations to determine the joint parameters that provide a desired position for each of the robot's end-effectors.

References

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