

Inverse Kinematics for Human Fingers

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1 Introduction

Human finger ik solver. C++ OpenGL SDL2 SDL2TTF Finger assigned to me : little finger.

2 Mathematical model

Describe setup with explanation and pics. Variable names etc.

2.1 Forward kinematics

Forward kinematics equations and experimentation.

2.2 Forward kinematics with joint constraint

Reworked forward kinematics equations and experimentation.

2.3 Inverse kinematics

Jacobi-matrix for reworked forward kinematics equations. Other IK related equations.

3 Implementation of inverse kinematics solver

Link to github.

4 Experimentation

Initial guess is important. Alpha is important for accuracy. Edge cases for initial guess.