Assignment #3

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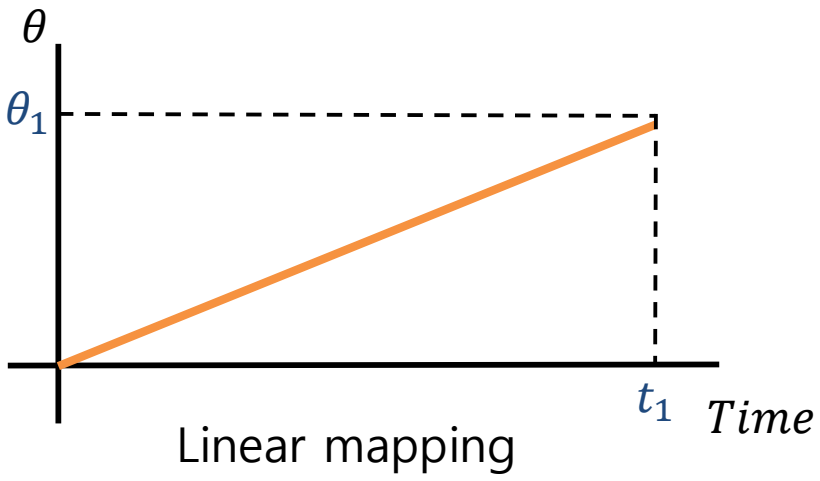
VR engine으로 Robot Arm 제어

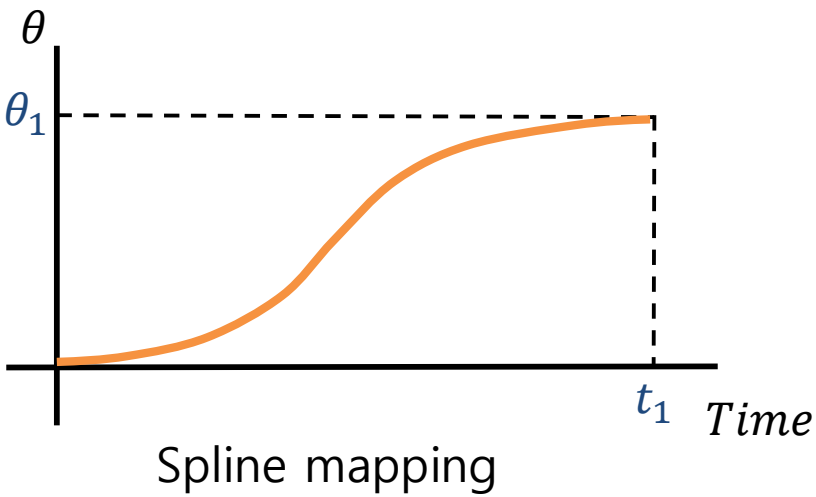
- Requirements
  1. Shading Method
     - Normal mapping with your name and ID.
     - Environment mapping with sky Box.
  2. Hierarchical control of Robot arm
     - Implement a 3 degree of freedom robot arm which is composed of Upper Arm, Lower Arm and Hand.
     - Control the angle of joints by Keyboard callback.
     - Using Python code to control the motion.
- Additional score
  1. Realizing natural motion
     - Control the angle of joints by Update callback.
     - Applying appropriate time-angle mapping.

Additional score: Time-angle mapping.

Spline mapping looks more natural



Linear mapping



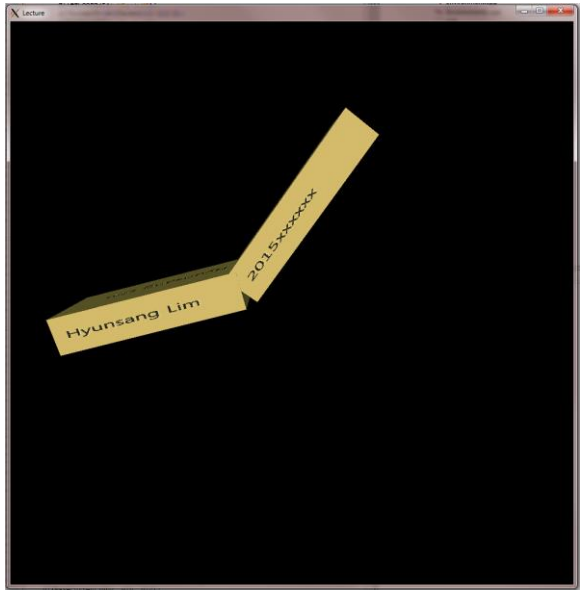
Spline mapping

2차 숙제와의 다른점

(1) Using VR Engine(다누리 VR) instead of OpenGL

(2) Synchronous control of Three joint angles.

(3) Implementing Environment mapping



[Assignment2 Image]

Assignment #3

Result Example (Synchronous control of angles)

Assignment #3

Submit the Assignment

- Submit the zip file @ Blackboard
  - File name must be “Assignment3_StudentID_Name.zip”
    - Ex. Assignment3_2015000000_박지혁.zip
  - Must include
    - Src file
      - Danuri projectfile(Including Python code)
    - Result running video file
  - Due date: Sunday, 18 November, 23:59