

CS380 Quiz Assignment 1

Instructor: Sung-eui Yoon

Due Mar.-7 (Wed.): Submit your answer at the beginning of the Wed. class

Name:

Student ID:

You want to make a virtual merry-go-round as shown in below.

You define a horse object in a modeling space, m^t , and define the merry-go-round in another space, say, world space, w^t . You know that the relationship between two spaces is like this: $m^t Z = w^t$



Question:

You want to rotate the horse in the center of the merry-go-round with a transformation matrix R , which is defined in the world space. To achieve this, what is the transformation matrix that you have to perform to the horse defined in the modeling space?

Your derivation:

(This should be based on the frame transformation that we studied in the class. For the derivation, you don't need to introduce new terms other than using m^t , w^t , Z and R .)

Policies: Everyone must turn in their own assignment. You can collaborate with others, but any work that you turn in should be your own.