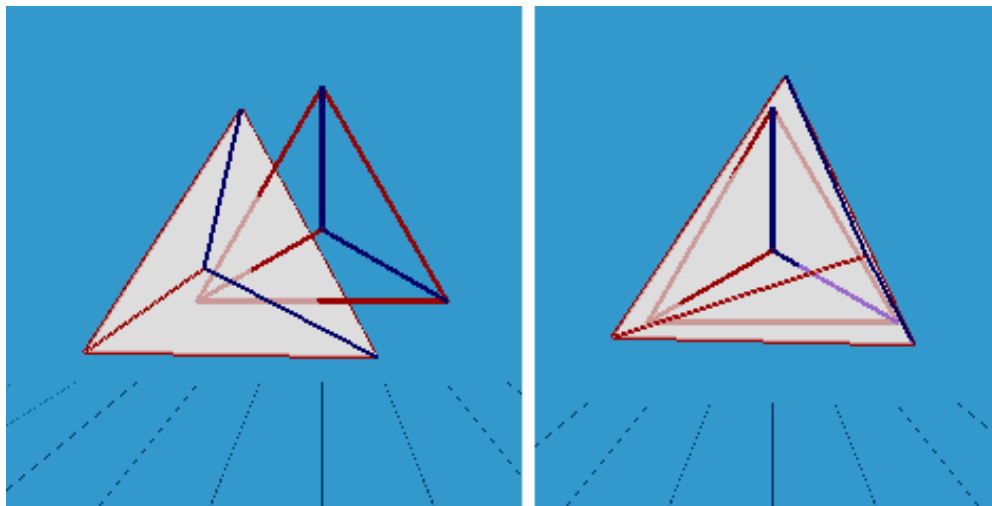


(a)



(b)

(c)

Figure 1. 6 DOF tracking task. The tetrahedron with semi-transparent surfaces was the controlled cursor. The tetrahedron without semi-transparent surfaces was the randomly moving target. The subjects' goal was to align the cursor with the target. Shown in the figure are examples of (a) a very larger error between the cursor and the target (b) a large translation error and small rotation error, and (c) a small translation error and large rotation error.

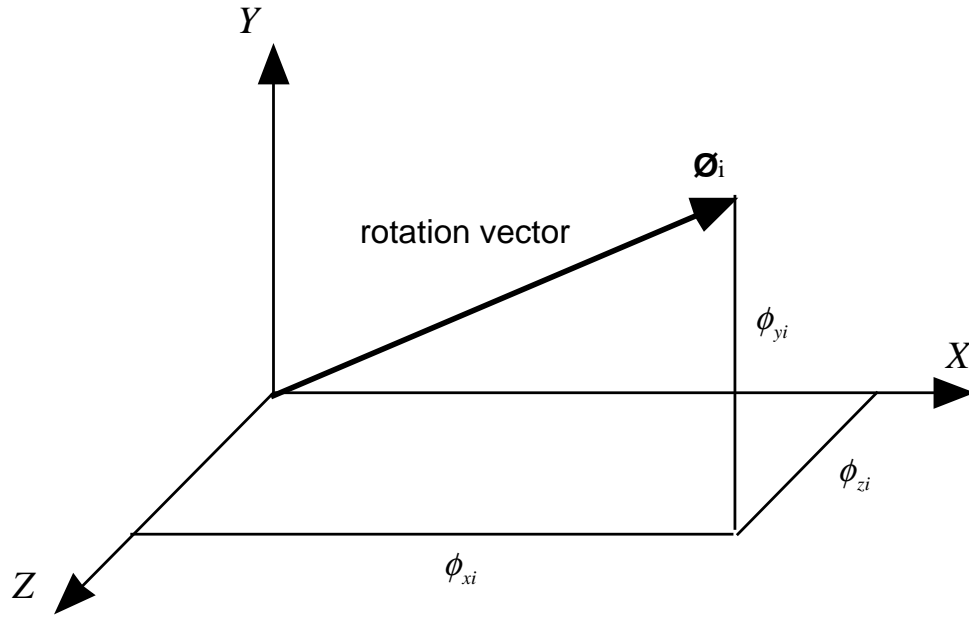


Figure 2. Rotation vector and its components in the X, Y and Z dimensions

Means of RMS Error with 95% Confidence Error Bars

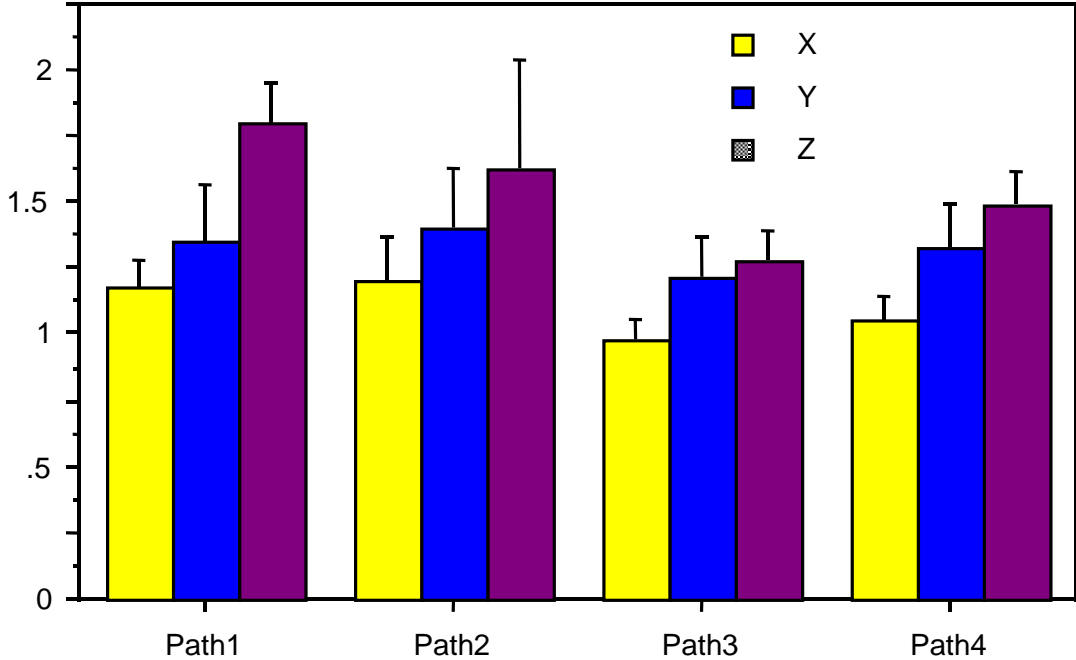


Figure 8. Consistent performance pattern in X, Y, Z across four tracking paths

Means of RMS Error with 95% Confidence Error Bars

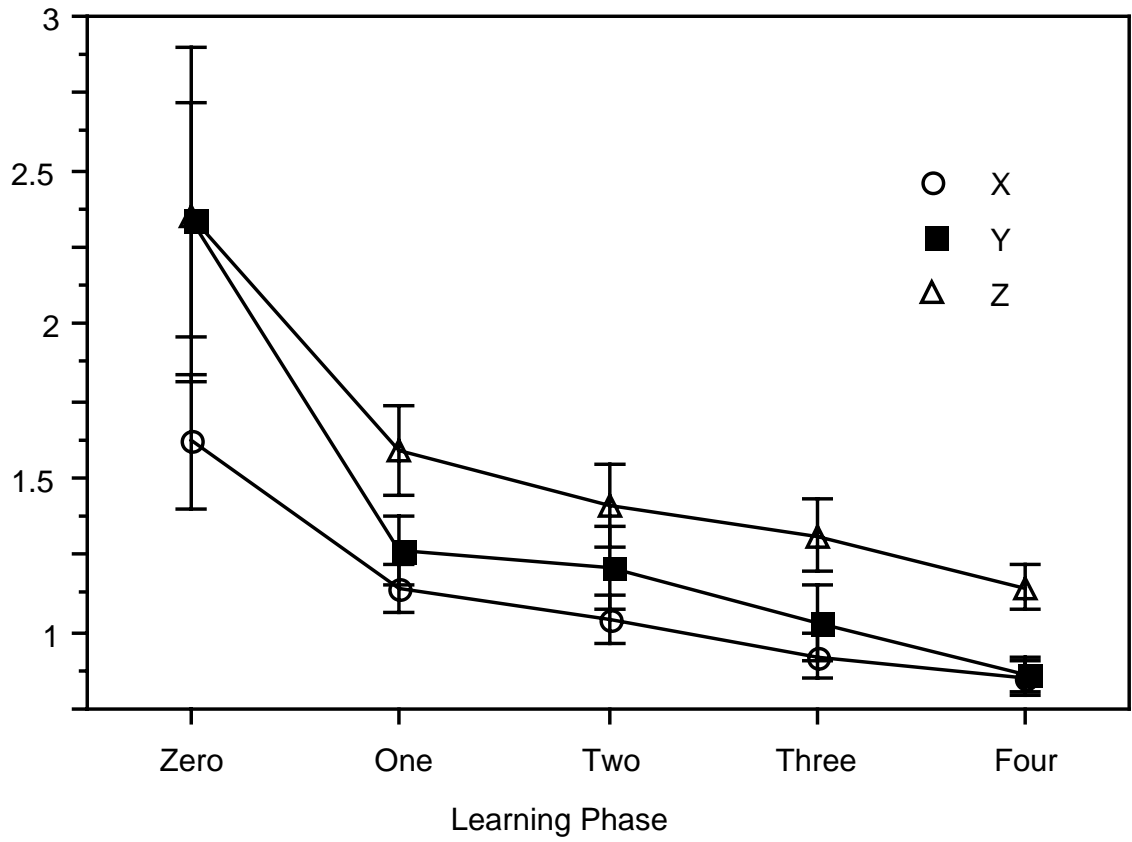


Figure 9. The evolution of Y_{rms} in relation to X_{rms} and Z_{rms} during learning

Means of RMS Error

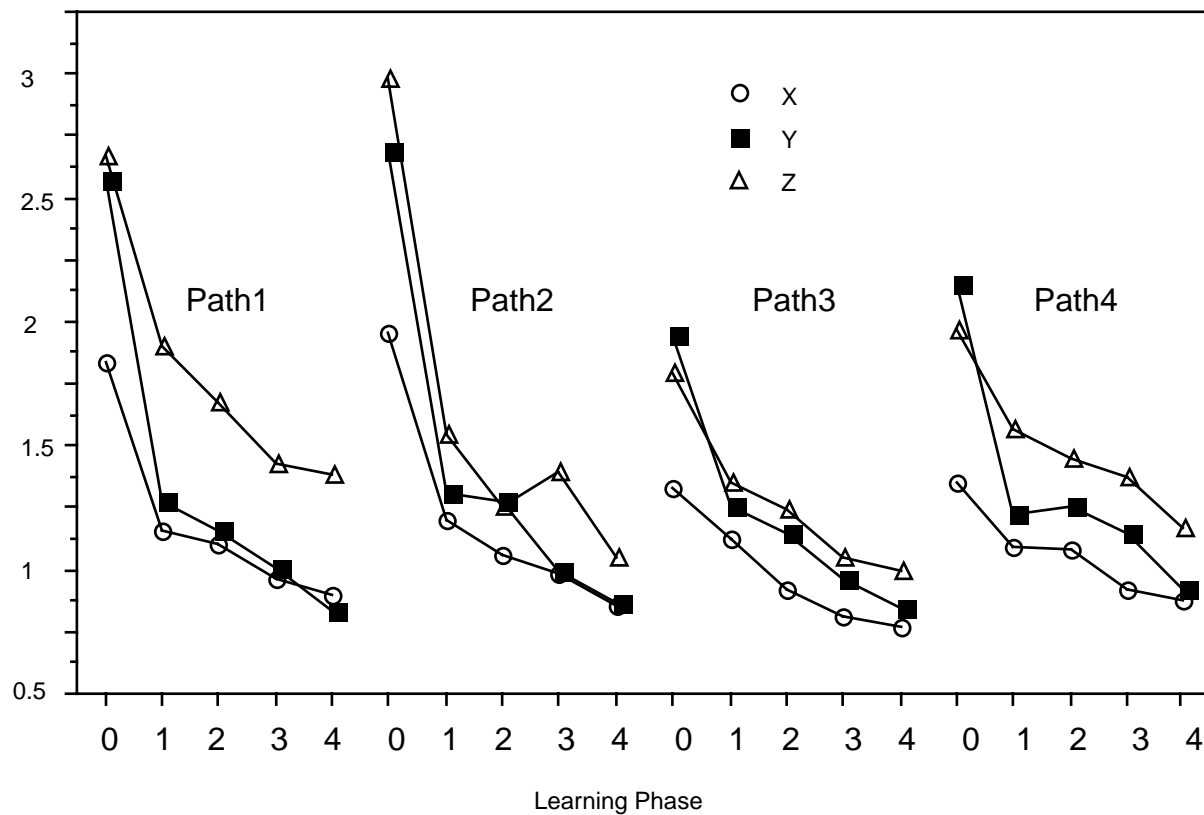


Figure 10. Error evolution for four distinct tracking paths

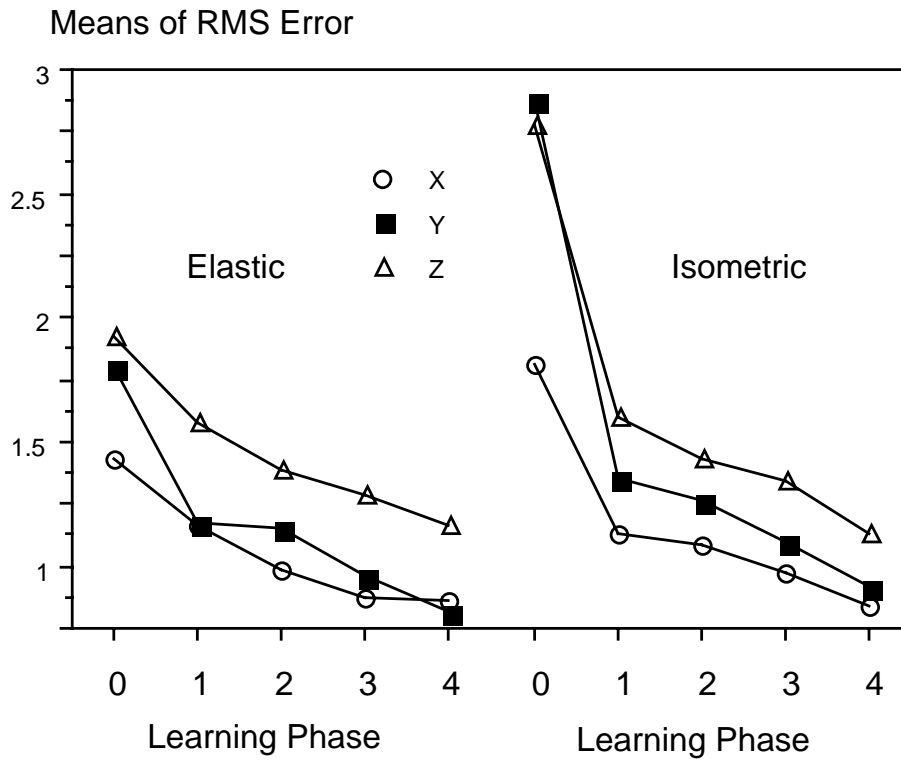


Figure 11. Error evolution for both input control modes

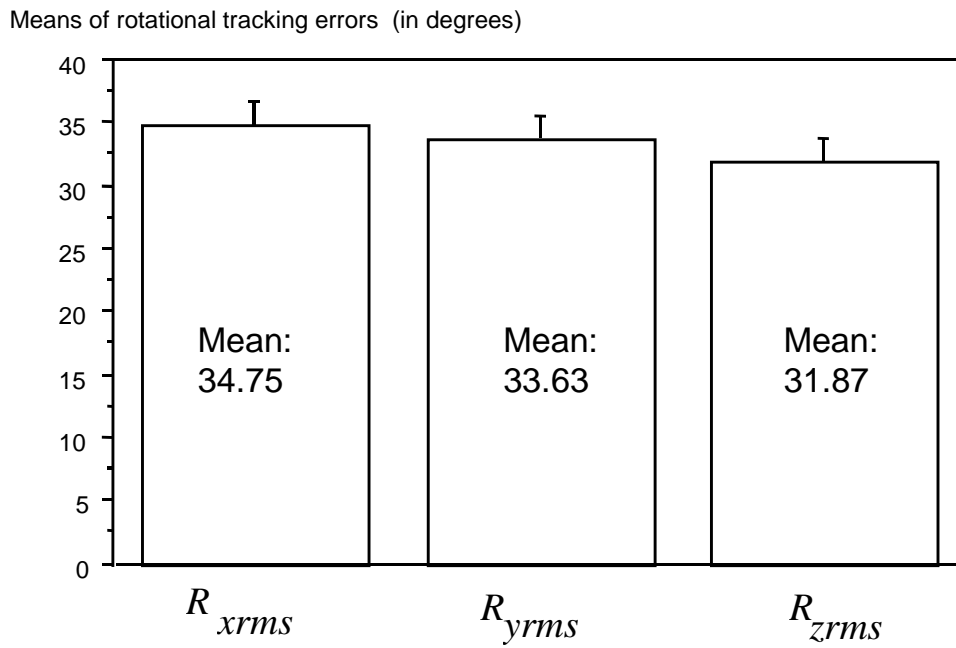


Figure 12. The means of decomposed rotation errors

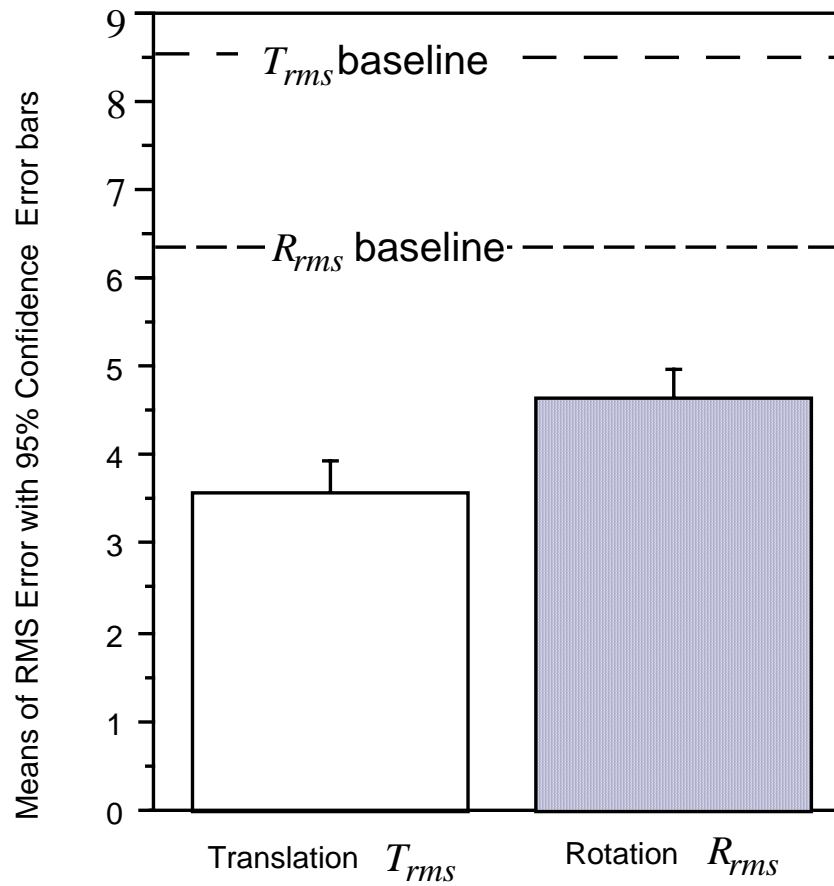


Figure 13. Mean tracking errors in translation and rotation during Phase 0 (no practice).

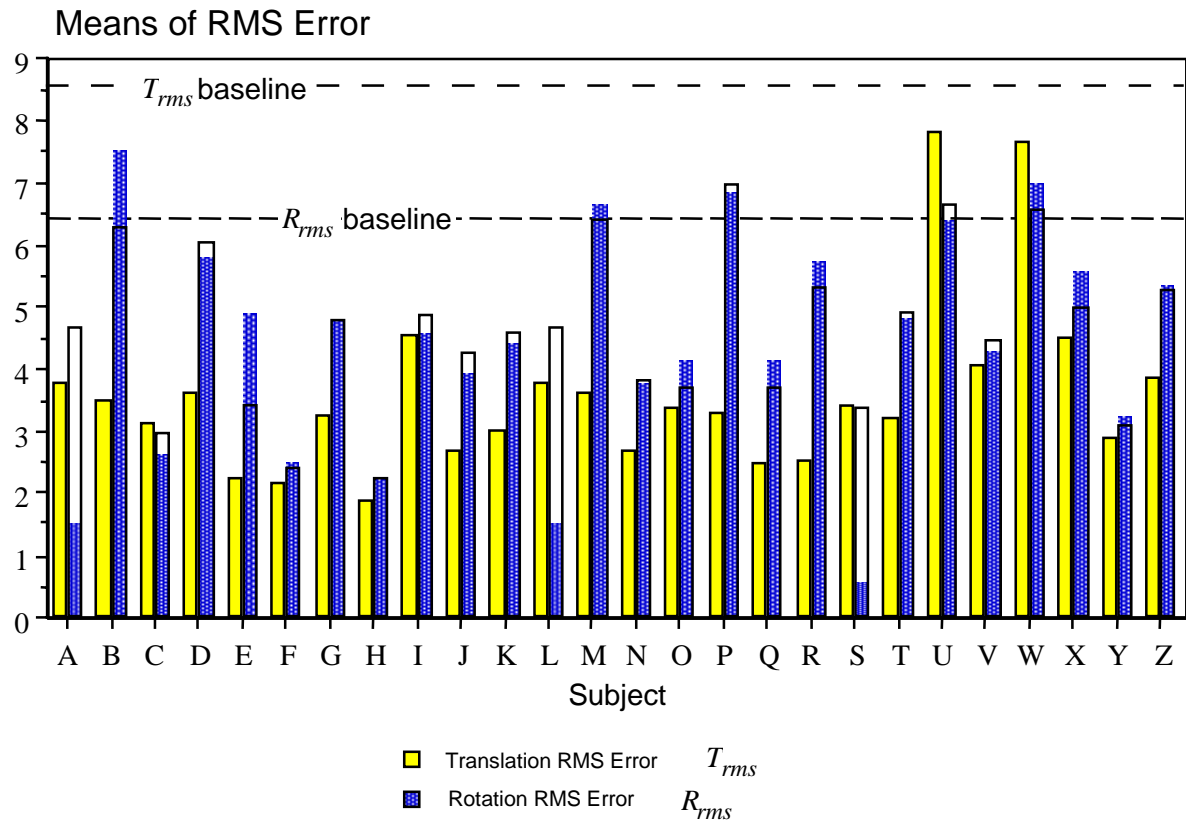


Figure 14 Individual performance scores in translation and rotation during Phase 0 (no practice).

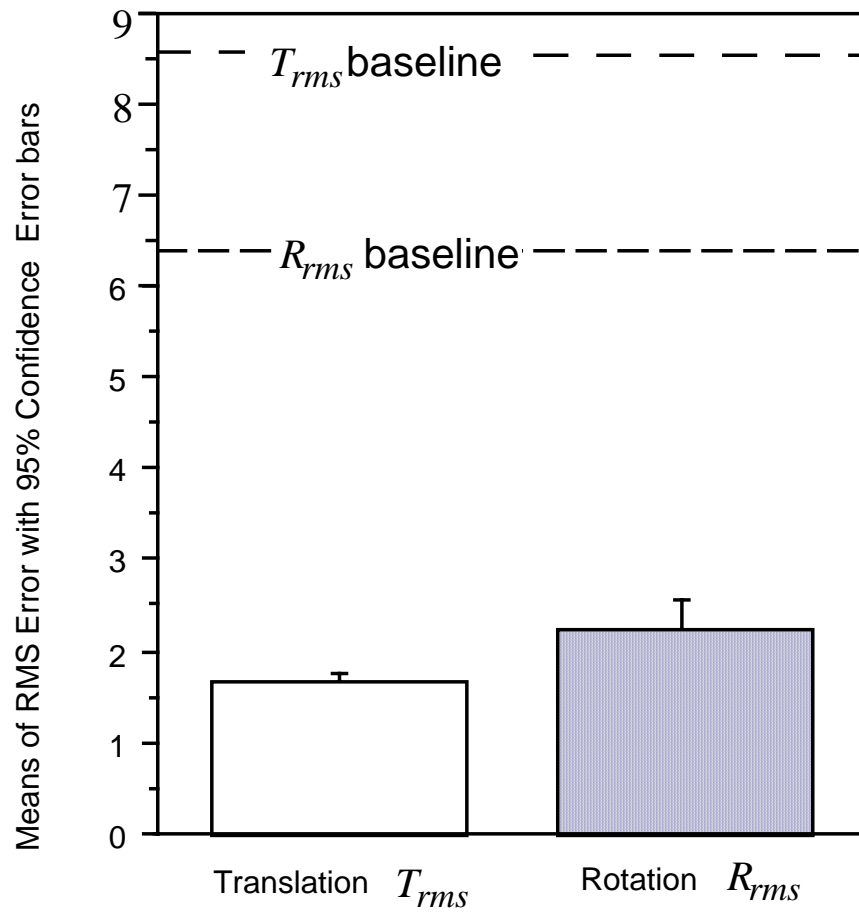


Figure 15. Mean tracking errors in translation and rotation during Phase 4 (40 minutes practice)

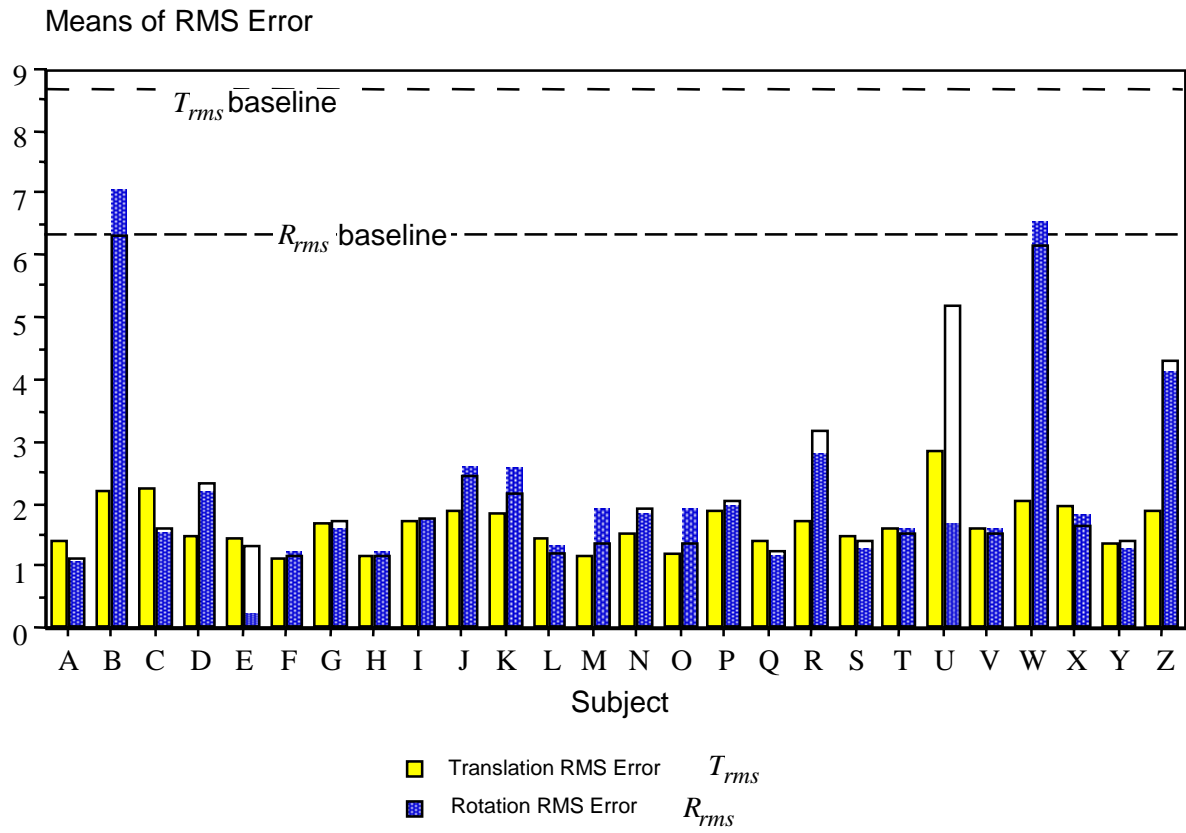


Figure 16 Individual performance scores in translation and rotation during Phase 4