Weekly Status Report 2009.05.20

Group 2 Seeing While Walking

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Accomplished this week

- More robust image processing program using color based segment is produced this week which could detect more than one object of same object simultaneously. K-means classification method is used to classify different colors that we have to decide the value of K in advance and we may predict K by applying PCA.

- We think the first derivative is another way to evaluate the head shaking. The object coordinates vector is obtained from image sequence as \([X_0 \ X_1 \ ... \ X_n]\), then the derivative profile of the object is \([X_1-X_0 \ X_2-X_1 \ ... \ X_n-X_{n-1}]\) which compensates for the bias that object goes up or down throughout the image sequence.
Default gait of AIBO

Refined gait of Group 1

Plans for next week

- Compute compensation for horizontal direction
- Prepare the presentation for next week