**Constant Velocity Motion in One Dimension (along a straight line) –**

**Post-Lab Check List.**

PART 1.

In Graphical Analysis –

* position vs. time graph: two sets of data (cart moving with different speeds) with 2 linear fits applied to the selected portions;
* velocity vs. time graph: two sets of data (cart moving with different speeds) with 3 statistics applied to the selected portions – for one of the runs one of the statistics should include ALL recorded data points ;

Calculations for run # 1– distance, displacement, average speed and average velocity corresponding to the

chosen time interval; instantaneous velocity at the beginning and at the end of the motion.

PART 2.

In Graphical Analysis –

* position vs. time graph: two sets of data (cart moving with different speeds) with 2 linear fits applied to the selected portions;

Calculations for run # 3– distance, displacement, average speed and average velocity corresponding to the

chosen time interval; instantaneous velocity at the beginning and at the end of the motion.

PART 3.

Prediction - written detail description of how to move the cart (state the exact values of position and time)

to match the given graph.



Screen capture of your actual recording of run # 5.

PART 4.

Calculations for run # 6 – using the equation (1) for uniform motion calculate *x(t)*

Screen capture of run # 6.

**ALL PARTS - Answer all questions posted in the lab write-up!**