Requirements

1) A small, 142g toy car will be rolled down a 30° grade incline and allowed to roll until it stops. The incline will be appx 2m long.
2) You shall affix a Renesas Board and sensors to the car to measure physical attributes
3) You shall use one accelerometer (X, Y) for sensing.
4) Since the car is moving, you will need to add a power source to the car/board assembly (9V with voltage regulator is suggested).
5) The system shall record accelerometer reading from when SW1 is pressed until the car stops.
6) The system shall permanently store accelerometer readings (i.e. EEPROM)
7) When SW2 is pressed, the board should download the EEPROM data via a RS232c cable to a PC Running HyperTerm as ASCII characters
8) RS232c communications shall be 9600 bps, 8 data bits, odd parity, one stop bit.
9) The transmitted data shall have the following format:

time	x-value	y-value	Velocity	distance	Δdistance
XXXX sec	X.XXXV	X.XXXV	XX.XXm/s	XX.XXXm	XX.XXXcm

10) You should display the recorded data in 0.1sec increments, but you may record data more frequently