DSP Homework 05

1. Write a summary of this week's video(s) and your further thoughts on the content.
2. In the development of the Shannon/Nyquist sampling theorem, the impulse function $\delta(t)$ is used. But $\delta(t)$ is not a practical signal. Does that mean that when applying the sampling theorem in practice, we need some approximation/modification? If yes, what is it that needs to be further done? If no, why?
3. Find a way to measure your maximum *instantaneous* running speed, accurate to 1mm/s (millimeter per second).
4. Derive the result of the Shannon/Nyquist sampling theorem and the perfect reconstruction formula.