

Assignment 7 Hints

This assignment should be a shorter than previous ones have been.

S1 – The derivation here proceeds much like that for the Lagrangian in a non-inertial system. One trick that helps is to work backwards a bit: you know that you will need $\mathbf{v} \times \mathbf{B} = \mathbf{v} \times (\nabla \times \mathbf{A})$. You might want to simplify this ahead of time using vector identities, so that you can recognize it when it shows up in your equation of motion.

S2 – I pretty much explained how to do parts (a) and (b) in class on 10/9. We will cover part (c) on Tuesday 10/21.