We will be using an air track with a glider on it to explore how energy and power effect it and how the average student produces power while going up stairs. We will be looking at how the potential energy and kinetic energy changes depending on how high on the track the glider is released at. We will be lifting one side of the track with 500g weights so that the height of the track is equal across all tests. There will be a photogate at the end of the track so that we can get accurate readings of speed to relate to power and energy. We can check the PE and KE from the top and bottom of the track and compare them to get the non-conservative forces. The non-conservative forces that we will be looking for are air resistance and friction. By using and we can compare the potential energy from start to finish by subtracting PE top – PE bot to get the total potential energy. By using and we can then subtract the KE top – KE bot to get the overall KE. When either the total KE or PE is not 0 then there is a non-conservative force acting on it. Conservative forces are a force with the property that moves something between two points like KE and PE. We will be measuring the height of the stairs and how long it takes to get up them. Then we will be converting that to work done and from there we can convert it to HP. HP = 746 watts.