# Individual Work:

My work is to make a module that can simulate some classic mechanical model. My goal is to make my program work as the real word in physical perspective.

When users choose the physics part and enter my mechanical interface. They can create a physical model as they want. There are some components for them to choose. For example, they can click the mass point button to draw a button in a certain position by clicking in the window, after that, they can type in the parameter of the components such as value of mass, initial value and so on. After create the model, they can click the start button, and our program will simulate the motion of the model. Our goal is to make it as real and vivid as possible.

# Pseudo code

I will make a button class, which has the member function to create a certain components instance if clicked.

I will make some class for different components including mass point, spring, little ball, slope and rigid rope… each class has some attribute and member functions.

Each time the user choose to create a new component in the window, my program will instantiate a new instance for this class. We will allow user type in parameters which is the input of constructors. A class should also have some member functions. For example, slope components must have checkHit member function to check if a ball hit on it. A spring class should have member function to extend or shrink with time. All the component class should also have the member function to draw themselves in the canvas.

There will also be a clear button used to clear all the components in the window.