CPSC 131, F16 GUI Project Form

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| Name (s)  Dan Crisp |
| Title of the project:  Ion Beam Trajectory |
| Objective  To calculate the trajectory of a single Ion, based on user’s input conditions (X,Y,dX,dY,dZ), and the strength of a dipole. |
| Equations used:  Maxwell’s equations, which allow for a calculation of motion based on magnetic field, charge, and mass.  Will be non-relativistic, assume a uniform field within the dipole, and neglect space-charge effects. |
| Figures and calculation to show in your project   * Input fields for initial conditions * Plot to display ion’s trajectory through dipole, as well as the outline of the dipole itself * Slider to allow user to adjust the dipoles strength * Pushbutton to re-calculate trajectory |
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