Resection Method ExpErimEnt manual

Objective: **To determine the location of station occupied by the Plane Table with the help of three control points for detailed plotting.**

Equipment details**:**

A. **For determining the position :**

   (1) Compass (2) Plane Table with Stand (3) Alidade (4) Ranging Rod

B. **For detailed plotting:**

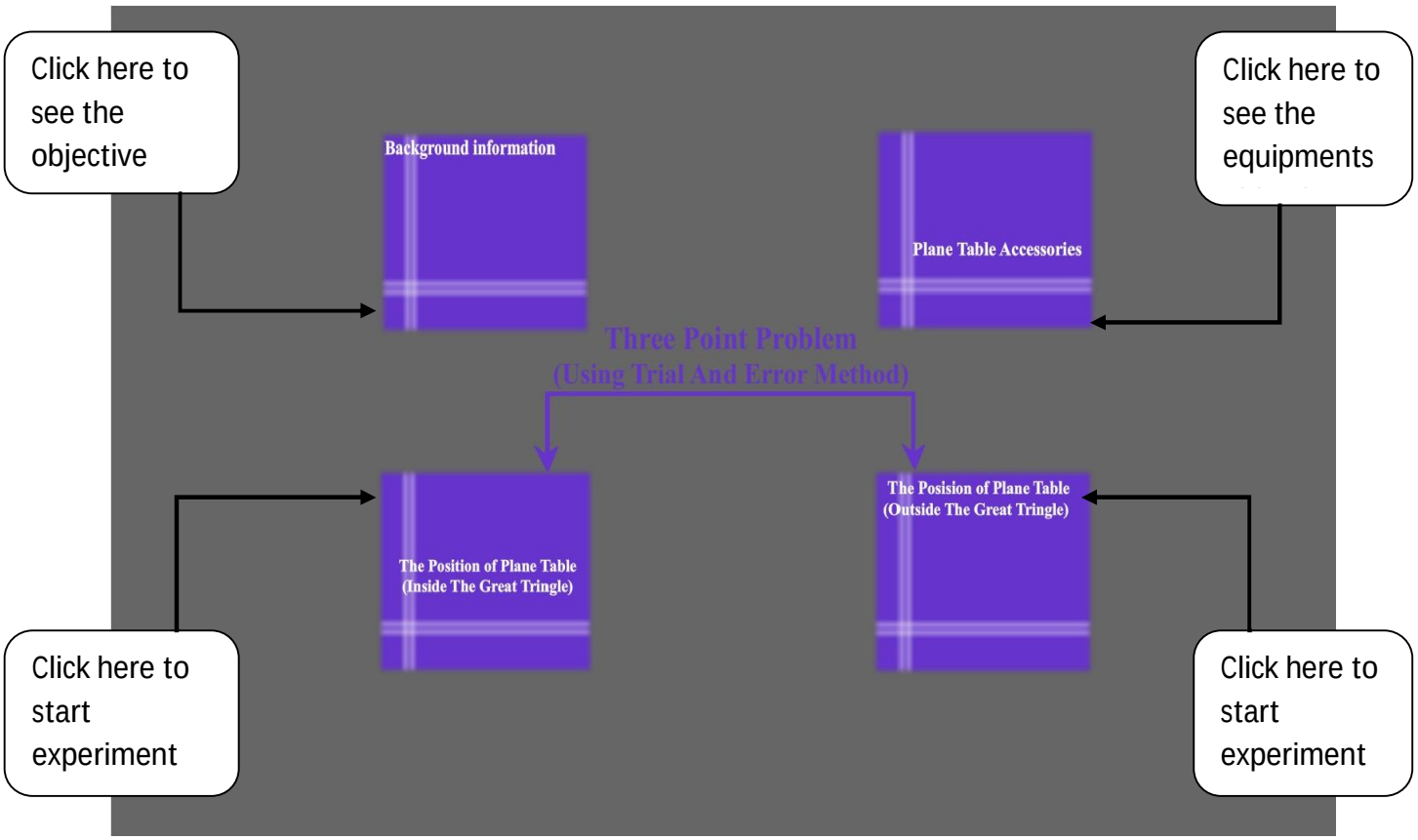
   (1) Tape (2) Plumb Bob (3) Level Bubble Tube (4) Theodolite/Level

   (5) Staff

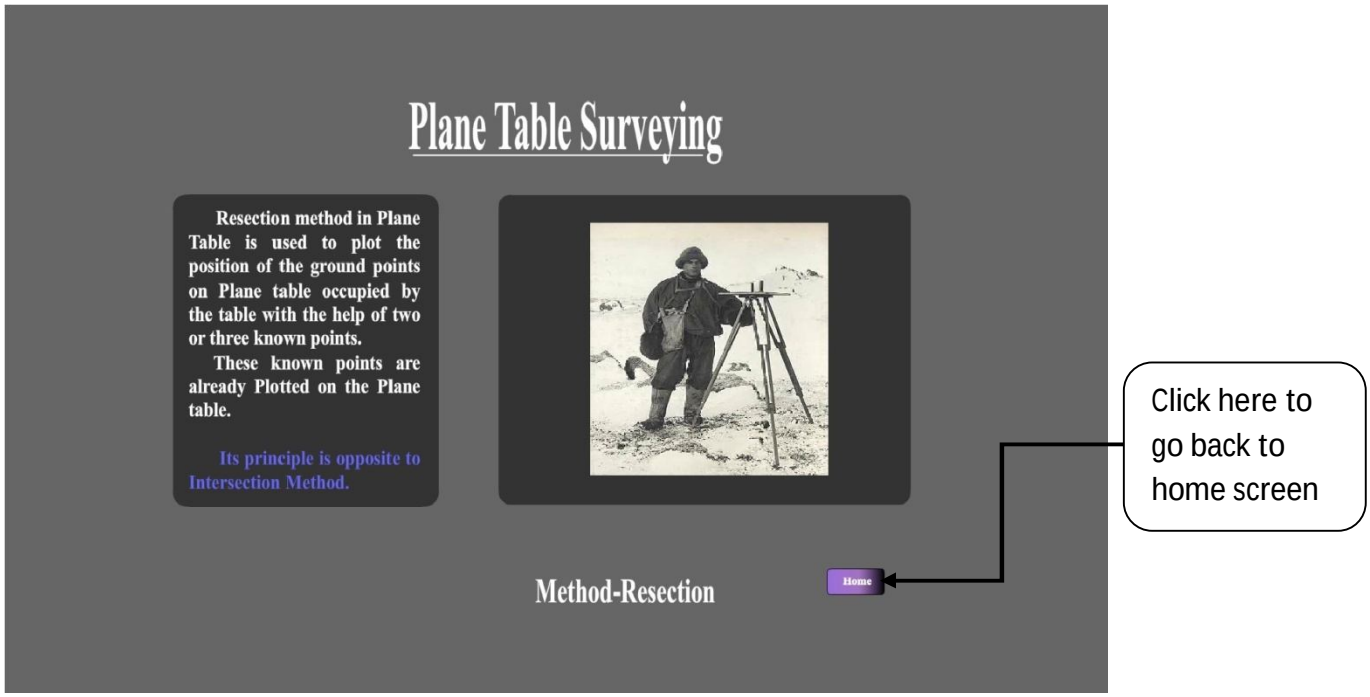
Procedure: To carry out this experiment in 2D environment on a computer system, following steps to be followed:

Step 1:

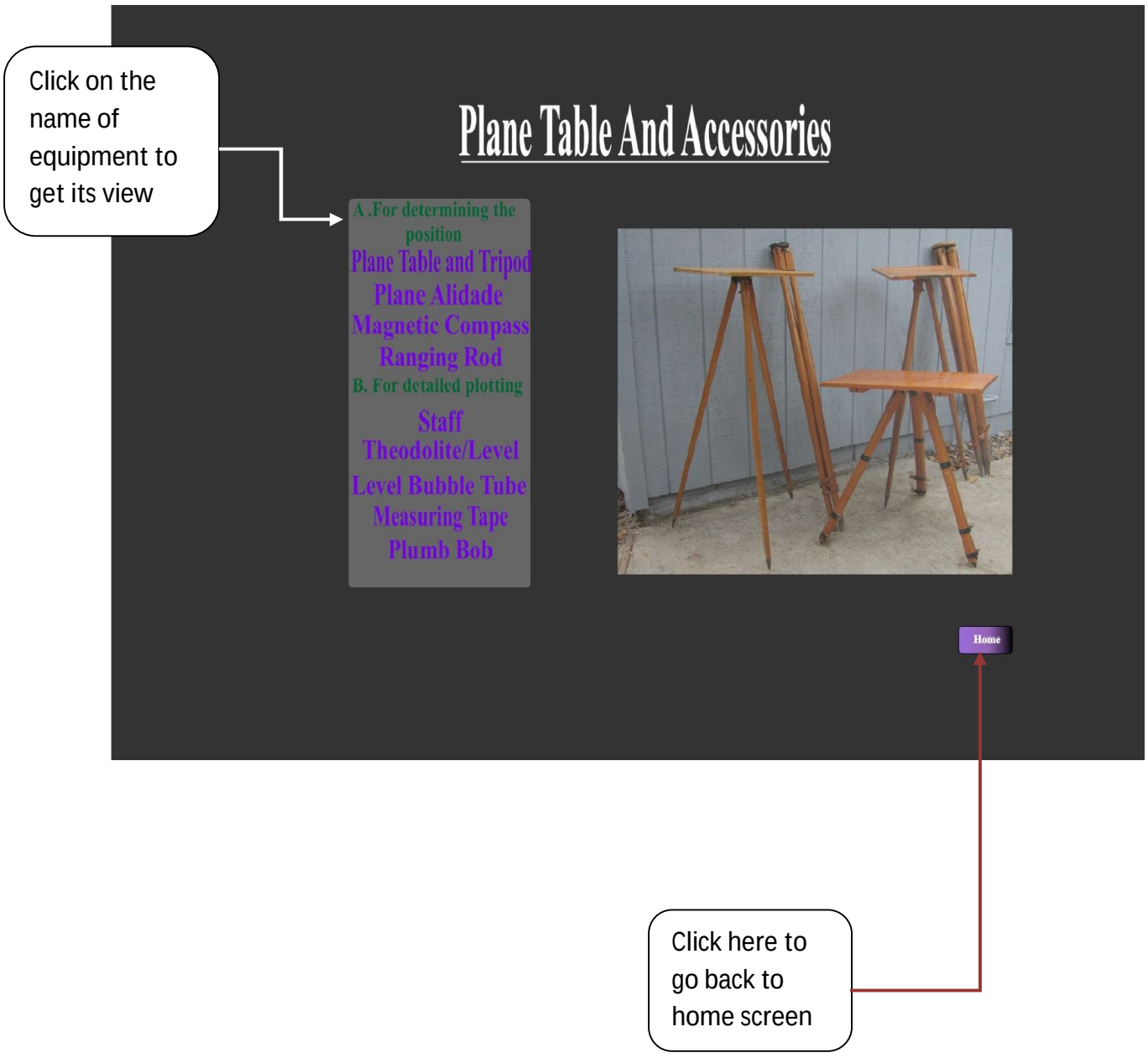
Click on the main file until home screen appears as shown in the picture below:



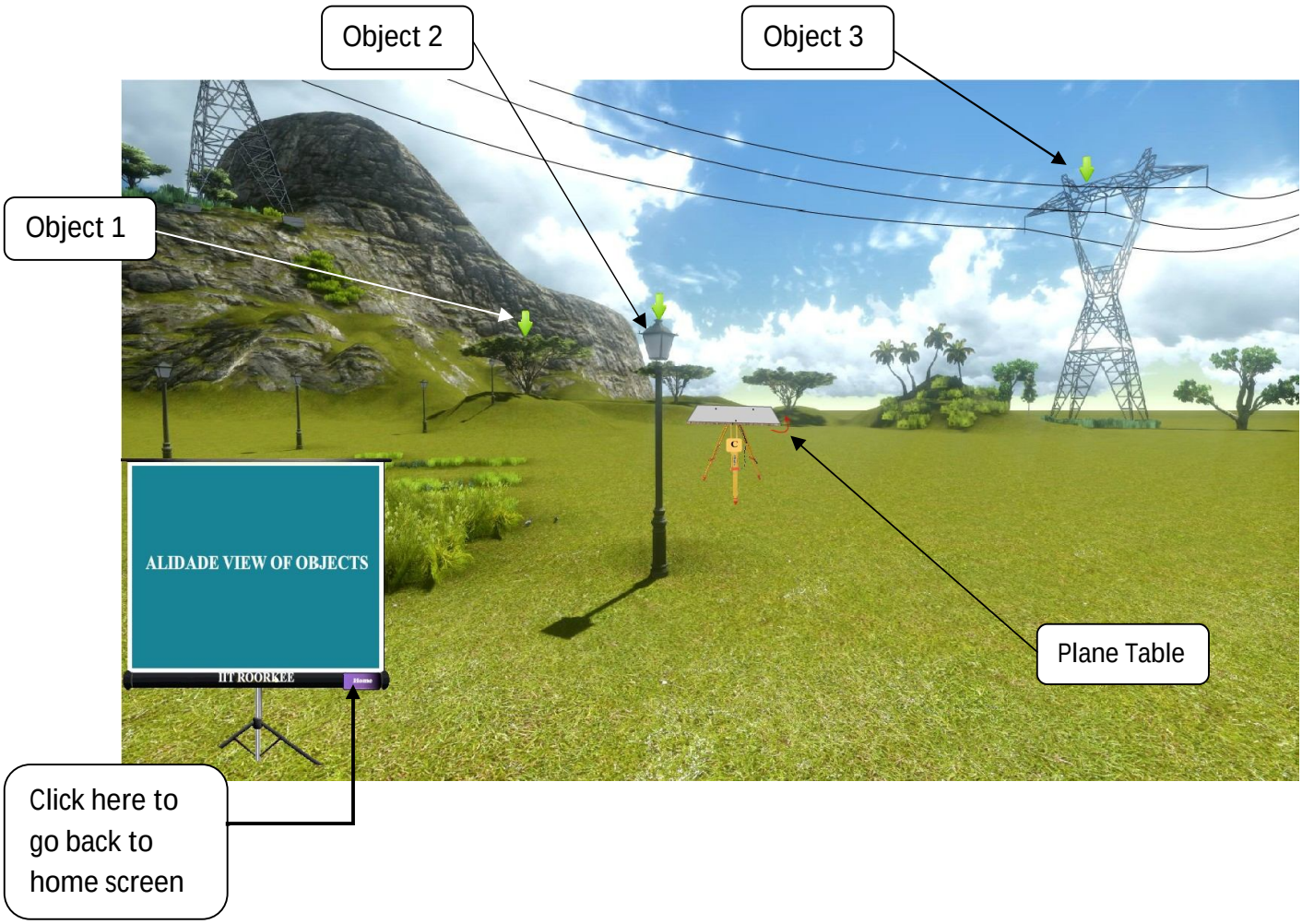
Step 2: By clicking on 'Background Information', following screen appears:



Step 3: By clicking on 'Plane Table Accessories', following screen appears:

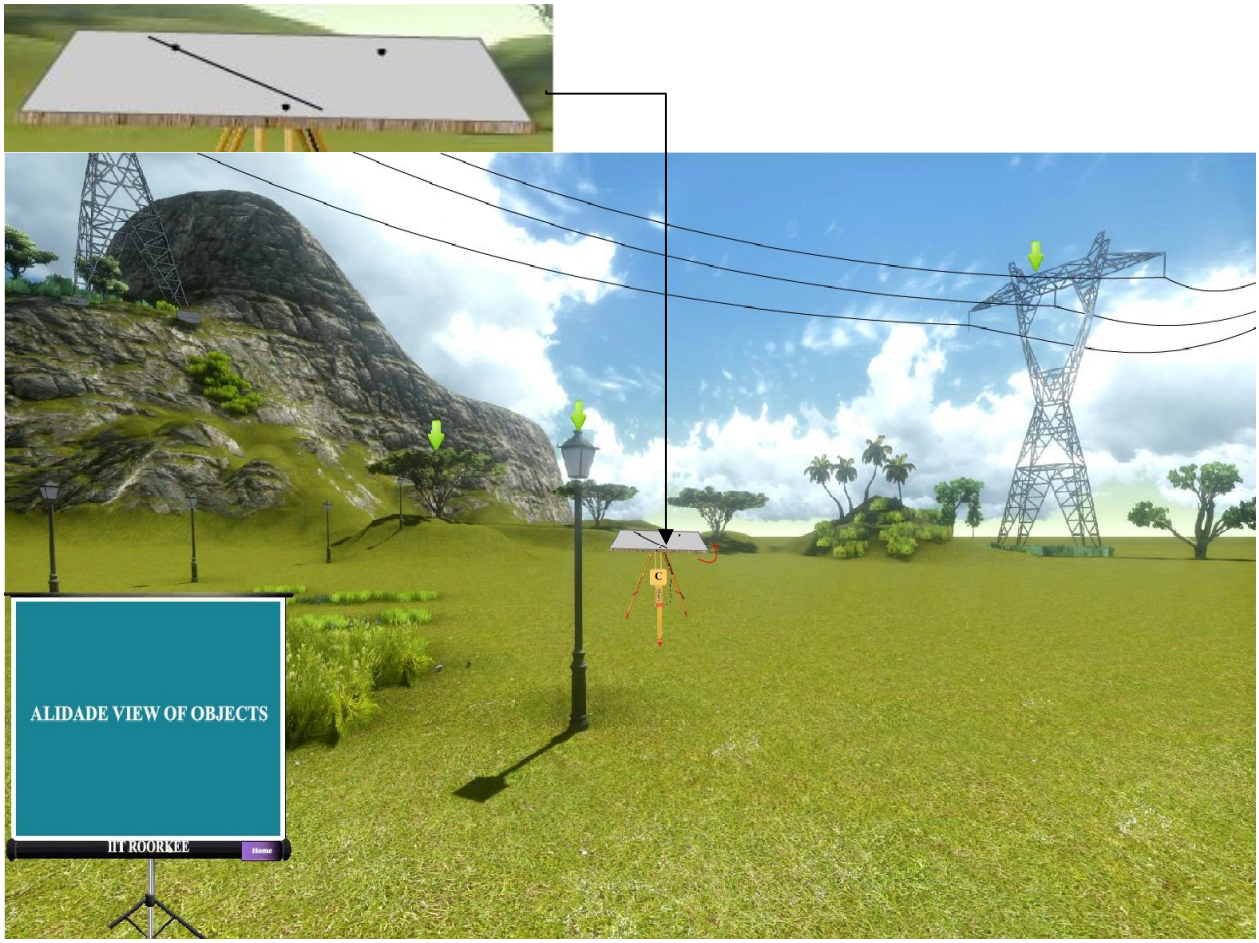


Step 4: By clicking on 'The Position of Plane Table (Inside the Great Triangle)', experiment starts and we get a 2D and realistic environment which is user friendly:

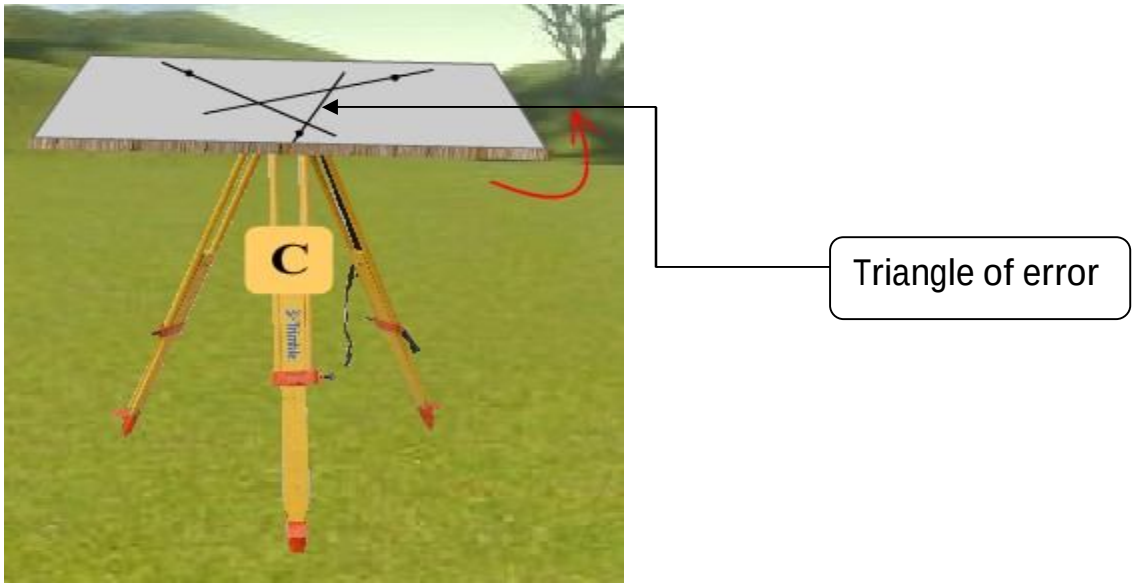


There are 3 objects(tree, street light and big electric pole) pointed by arrows and a Plane Table located inside all of the 3 objects. Three points are already plotted on the Plane Table using either Radiation methd or Intersection method. On the lower left corner, there is also a panel for alidade view of object.

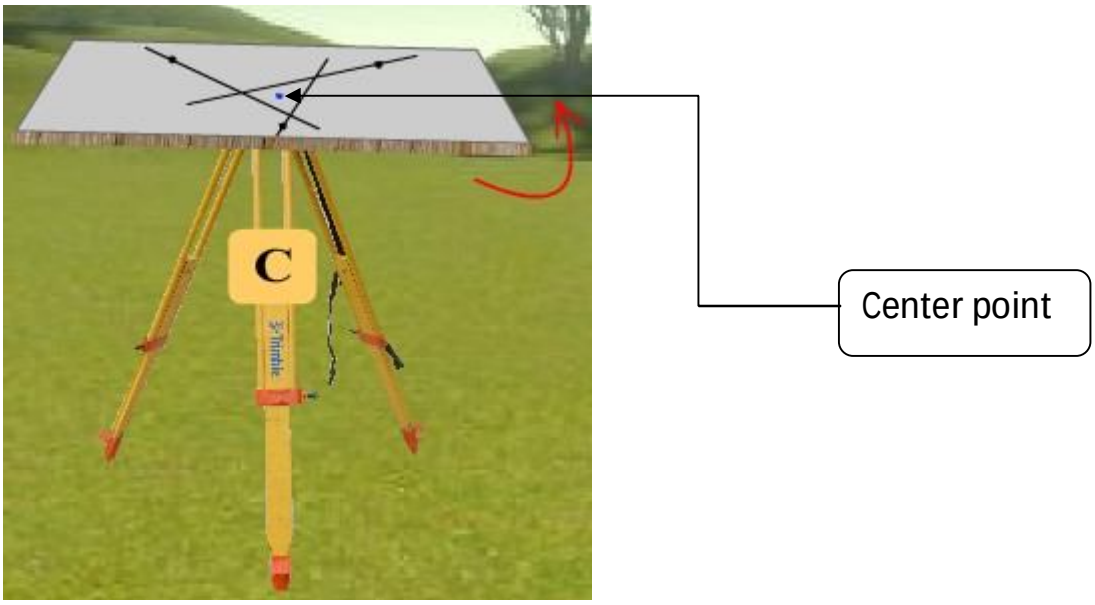
Click on a object to get alidade view of object and a line is drawn as shown in the following image:



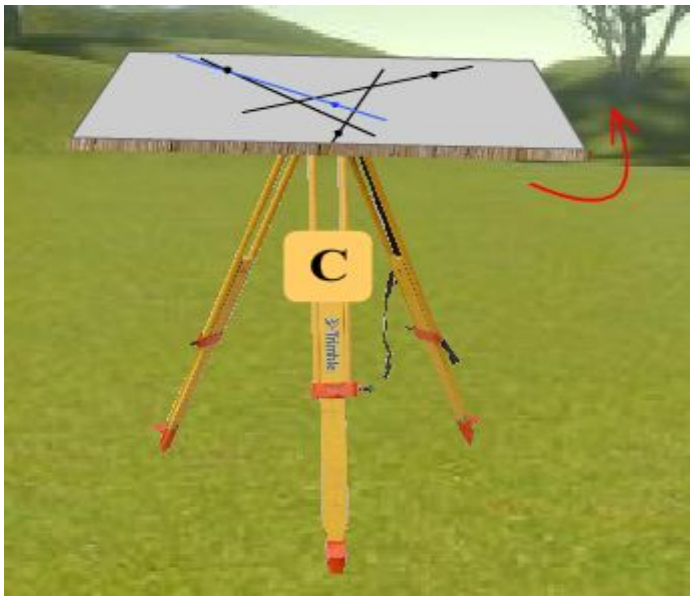
Accordingly, clicking on other 2 objects, we get a triangle of error as shown below:



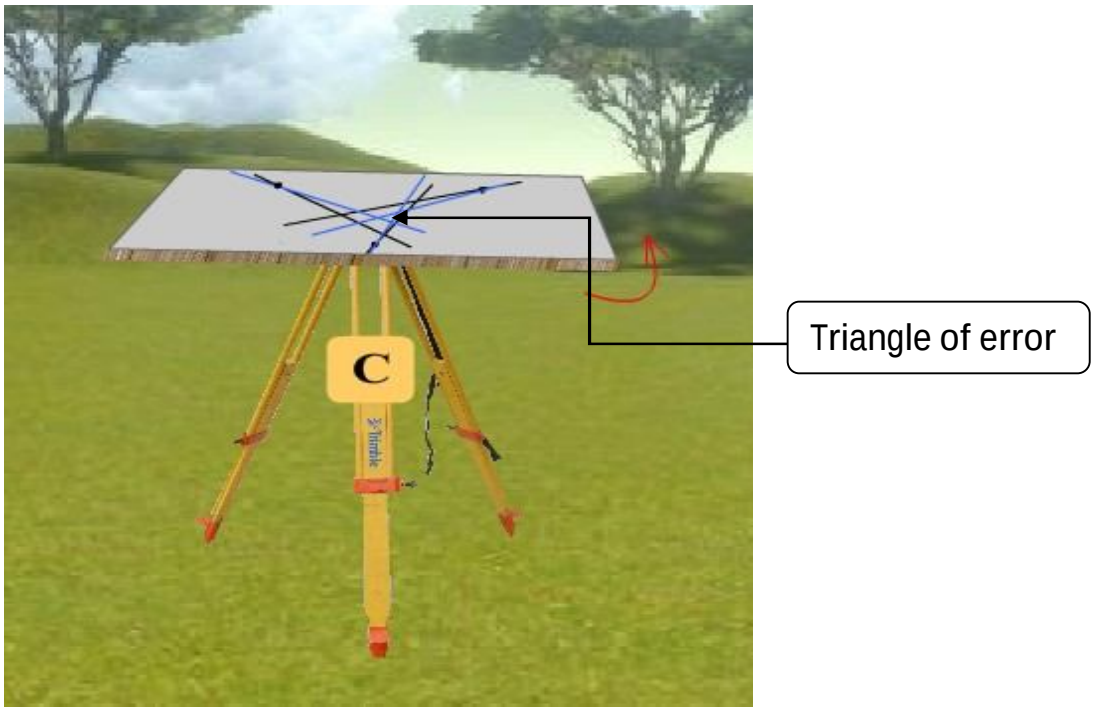
Step 5: Now click on "C" labeled on tripod to get center point of triangle as shown below:



Step 6: Then click on tree object to draw a line (colored blue) joining center point and already plotted point on Plane Table as shown below:



Step 7: Now, click on red curved arrow to rotate the Plane Table. Then, by clicking on other 2 objects, we get another triangle of error which is smaller than previous triangle of error as shown below:



Repeat step 5 to 7 to get smaller triangle of error than previous one.

Ultimately, you will get a single point on plane table rather than a triangle of error. This will be the location of station occupied by the Plane Table.