ALGORITHM:

We have a video stream from which we capture frames at time t and t+1.

Convert these frames into gray scale images coming from a camera.

the frames are captured at time t and t+1. We extract all the intrinsic parameters, obtained via any one of the numerous calibration toolboxes available along with a chessboard.

For every consecutive frame, we need to find the rotation matrix R and the translation vector t, which describes the motion of object between the two frames.

Estimate the Essential matrix with Ransac.

Obtain R and t from this essential matrix.

Obtain camera pose by concatenating R and t and plot them on a 3D plot.