Experiment notes:

1. Building the apparatus
2. Creating masks for the coloured dots
3. making sure background is monochromatic
4. adding a red dot at the center of the disk to better measure the pixel to cm conversion
5. Measuring the apparatuses length and radius of disc
6. factor, and the velocity of the center of the rigid body, and to calculate the distance from the center of mass of the disc to the point mass
7. making sure the camera is level with the experiment to avoid parallax error as the blue dot is not flush with the disc whereas the red dot is
8. making sure the camera view is perpendicular to the motion of the experiment to avoid differences in measurements from either end of the experiment, the end which the camera is angled away from would appear closer to the camera
9. changing the location of the origin from the raw data to better visualise the experiment
10. by measuring the time elapsed between each frame of the experiment, the time which each data point was taken was recorded
11. measuring velocity and acceleration from this data
12. converting from xy coordinates to theta