In this assignment, you will explore different ideas together for image stabilization and test them out using software. Please meet together as one group to do part 1. You may then break into subgroups to do the remaining parts.

1. Based on the papers and perhaps other research, generate several alternative algorithmic ways to approach the problem of image stabilization. Briefly describe these alternatives and their possible advantages and disadvantages. Consider performance (how well you think the approach might solve the problem), computational demands and design complexity. As a rule of thumb, consider that the images will be about 512x512 in size, and that you will be able to do something like 50,000 reads per image to decide what the motion vector is.

2. Based on your background work in problem 1, choose two alternatives for further study. For each, write a concise, one-page specification of the proposed algorithm.

3. Wrote a C program for each alternative from part 2. Try your program out on the image test data. We should have “real” camera data soon for you to use, but you can use the fake data to get started.

4. Write a short analysis of how well your two algorithms worked and how you might modify them based on what you have learned.

Hand in your background study, and the specification, program and analyses for each of the two alternatives.