Mach Zehnder Interferometer QuILT Readme

To use the Mach Zehnder Interferometer QuILT effectively, please work on different components in the following order:

1. Answer the questions on the Pretest (MZ pre test8.docx).
2. Work on the warm-up (MZ-warmup4.docx), which discusses the basics of how constructive and destructive interference takes place at different detectors for the given setup.
3. Work through the Mach Zehnder QuILT (MZ tutorial29.docx). The QuILT requires the use of the simulation interferometer.exe. Download the zip file “interferometer.zip” and click “run” in the dialog box “Open file-Security Warning.” The simulation “Quantum Eraser” will open. Click the British flag button to use the English version. Then click the “start” button to begin the simulation. The simulation was developed by Klaus Muthsam ([muthsam@habmalnefrage.de](mailto:muthsam@habmalnefrage.de)).
4. Answer the questions on the post test (MZ post test8.docx) to check your understanding of some of the concepts in the QuILT including quantum eraser.
5. Work through the two homework supplements (MZ math homework10.docx, MZ with polarizers hw-8.docx) to deepen your understanding and to bridge the gap between qualitative and quantitative understanding of the issues. The homework supplements should be printed out in color for the students.