



What you'll need

Here is a list of the items needed to complete this Wave-Particle Duality activity.

- 1 set of 3D-printed double slit cards, laser mount, and tactile images
 - You can order these from <u>CraftCloud</u> using <u>these STL files</u>
 - Check with your local library or school to see if they have a filament 3D printer available for use.
 - Make sure the dimensions of each object are as follows:
 - Laser Holder: 17.6x170x15.49 mm
 - Slides A, B, C: 80.5x15x2 mm
 - Particles over time tactile: 4.31x165.46x73 mm
 - Wave interference tactile: 66.36x73x21.24 mm
 - Order these with PLA material in a standard finish with the color of your choosing.
- 1 red laser
 - Optional: violet and green lasers
- 1 measurement grid print-off (provided in the handout)
- A piece of tape

Cost for each part:

3D Prints	\$24.82
Red Laser	\$6.95
Violet Laser (optional)	\$7.49
Green Laser (optional)	\$7.95

For variations on this activity, please see:

- https://www.aps.org/programs/outreach/physicsquest/wave-particle.cfm
- https://www.instructables.com/How-To-Make-a-Simple-Double-Slit/
- https://www.exploratorium.edu/snacks/two-slit-experiment
- https://www.instructables.com/Replicate-Youngs-Double-Slit-Experiment-at-Home/
- https://youtu.be/-uBFKgHR_4k?feature=shared