



THREE DROPS

Dimensions:

- Minimum 80" x 60" (2m x 1.5m) *
- Wall area surface 3' x 6' (1m x 2m)
- Ceiling Mounted equip min 12' (3m) to wall

Power Requirements:

Total power requirements 50V60 hz -
120volts~ 4 Amp depending on projector.
Camera output 12 Volts, 2.1 Amp, input
100-240 Volt

Walk in front of the projection and see how your shadow affects water as it becomes magnified. Three Drops shows how the forces of nature are radically different as we change scale. The interactive projection moves through three segments. In the first segment a shower of water pours down and you can interact with it using your shadow, just like taking a shower. As the screen zooms into a single drop of water in the second segment, your body's shadow is shrunk down a thousand times, time is slowed a hundred-fold and you can interact with a single drop of water. At this scale, the surface tension of the drop is the stronger power and we can no longer get "wet" – the water is more like a soft beach ball. Zooming in further In the third segment, you interact with water at the molecular scale (approximately one billionth your size). At this scale individual water molecules (made up of one oxygen atom and two hydrogen atoms) interact to form a dynamically changing loosely organized structure. The oxygen and hydrogen atoms of different molecules are attracted to each other causing bonds and structure to form between them. Use your shadow to interact with the molecules. Your shadow represents a positively charged ion (similar to the mineral ions formed when table salt is dissolved in water) and will attract the negatively charged oxygen atoms in the molecules. You may notice clumps of molecules including rings and chains. These clumps are inspired by x-ray analysis of the structure of water performed by Stanford University that suggests these structures may exist when looking at water at a very short time scale (the simulation is slowed down by approximately one trillion times). Created with the support of the National Science Foundation's Nanoscale Informal Science Education Network (NISE) and Ageia Corporation.