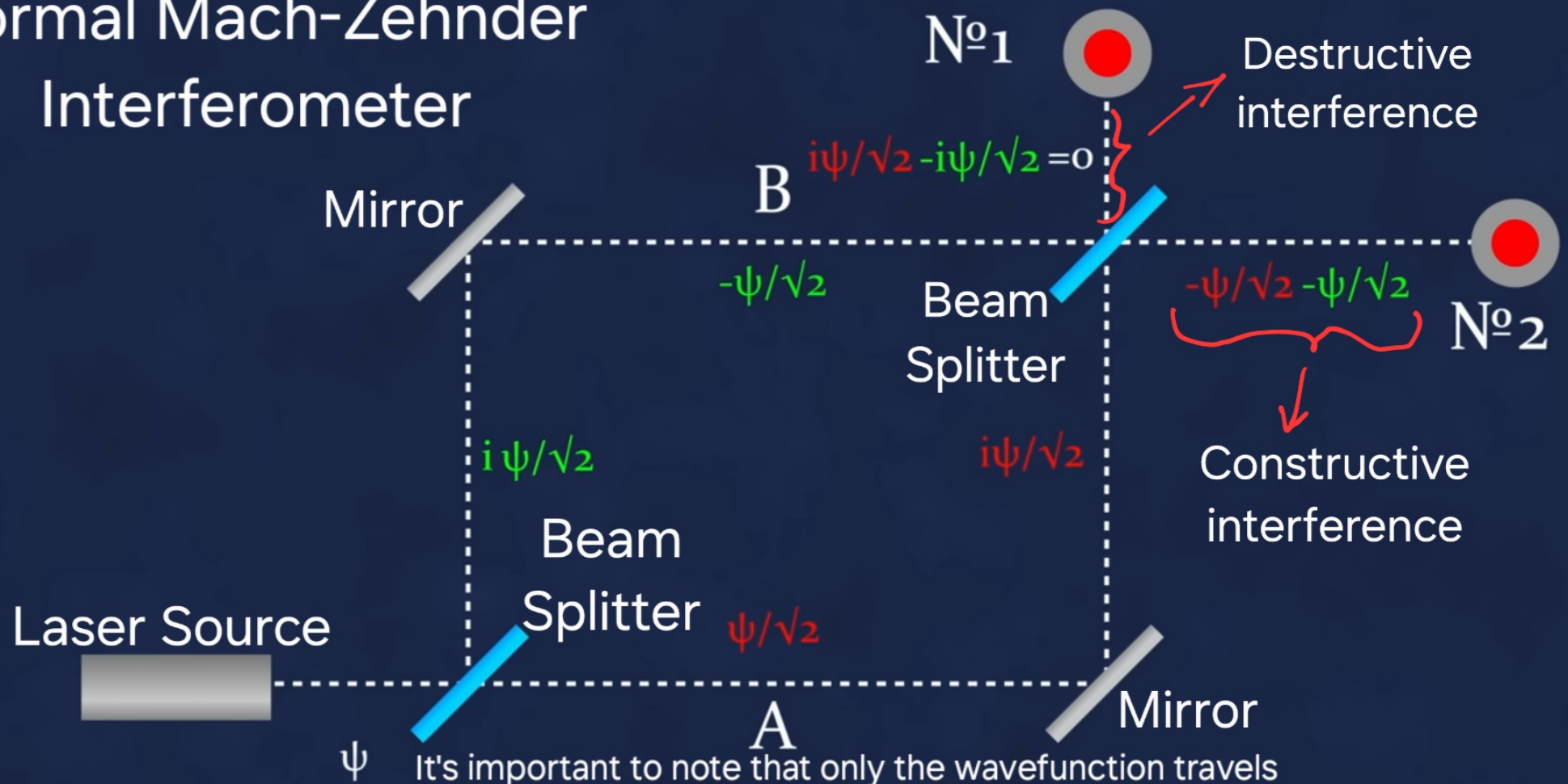


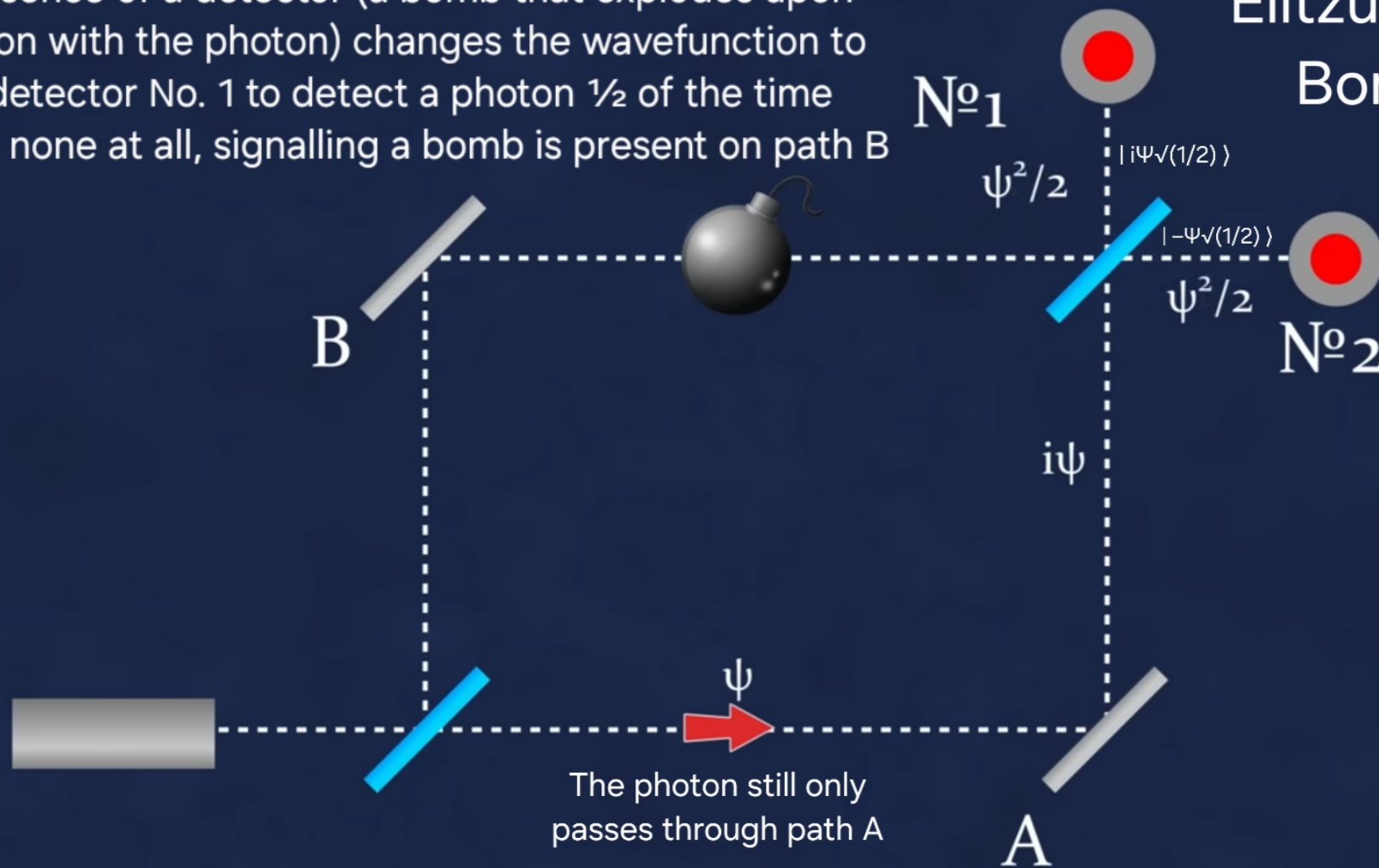
Normal Mach-Zehnder Interferometer



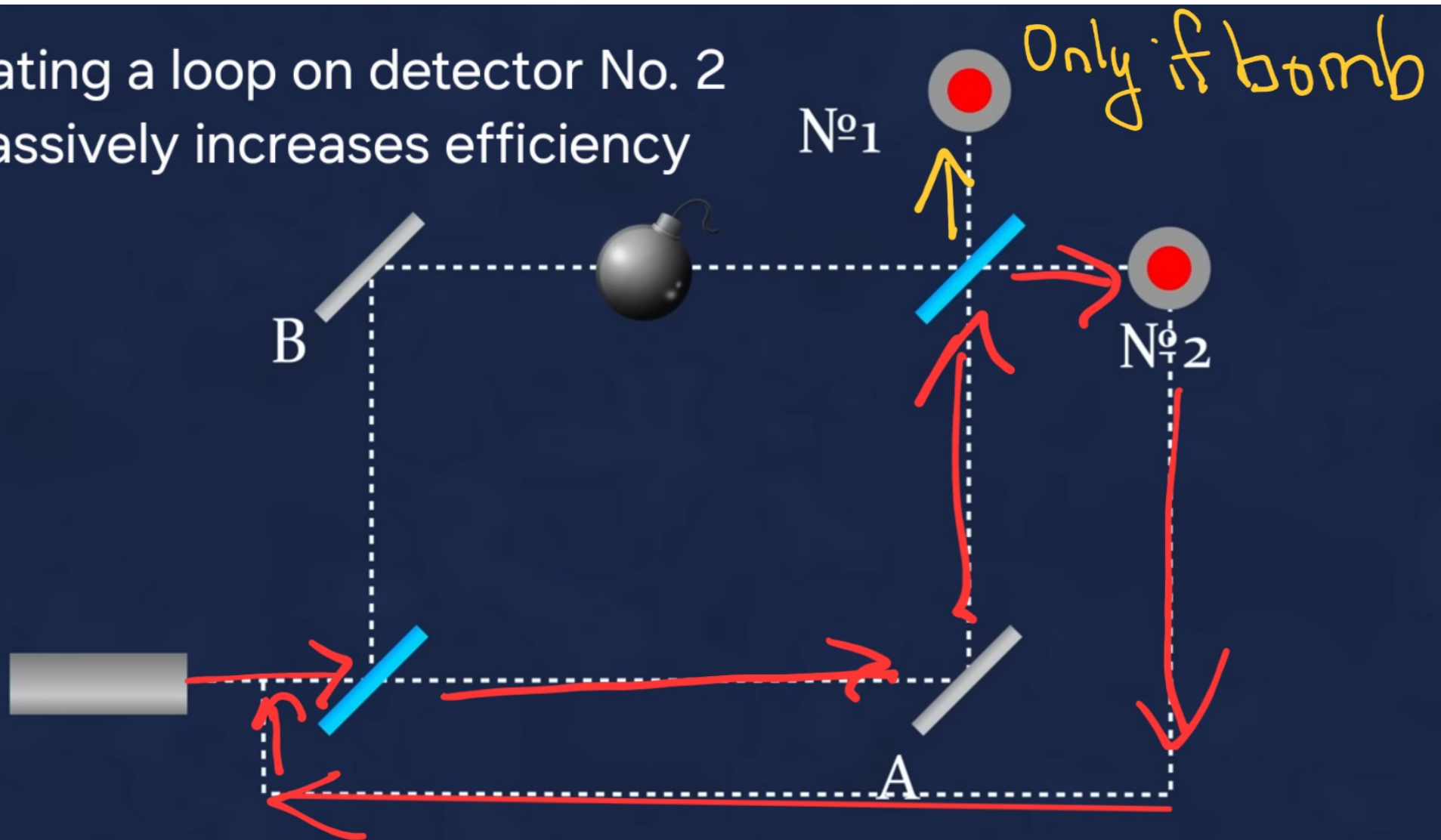
ψ It's important to note that only the wavefunction travels through both paths, whereas the photon itself only goes through path A and only detector No. 2 detects it, which follows pilotwave theory

The presence of a detector (a bomb that explodes upon interaction with the photon) changes the wavefunction to allow detector No. 1 to detect a photon $\frac{1}{2}$ of the time instead of none at all, signalling a bomb is present on path B

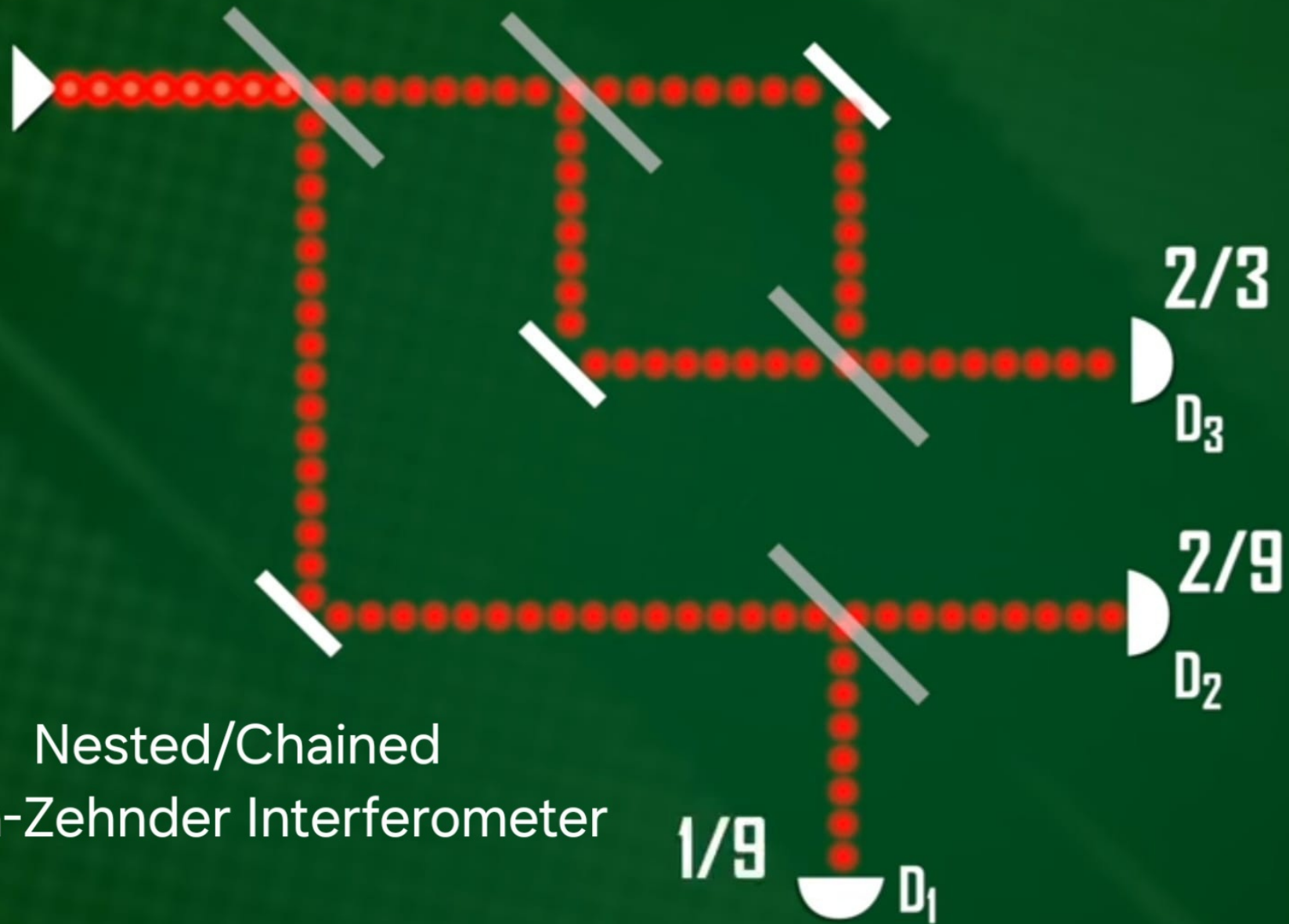
Elitzur-Vaidman Bomb Test



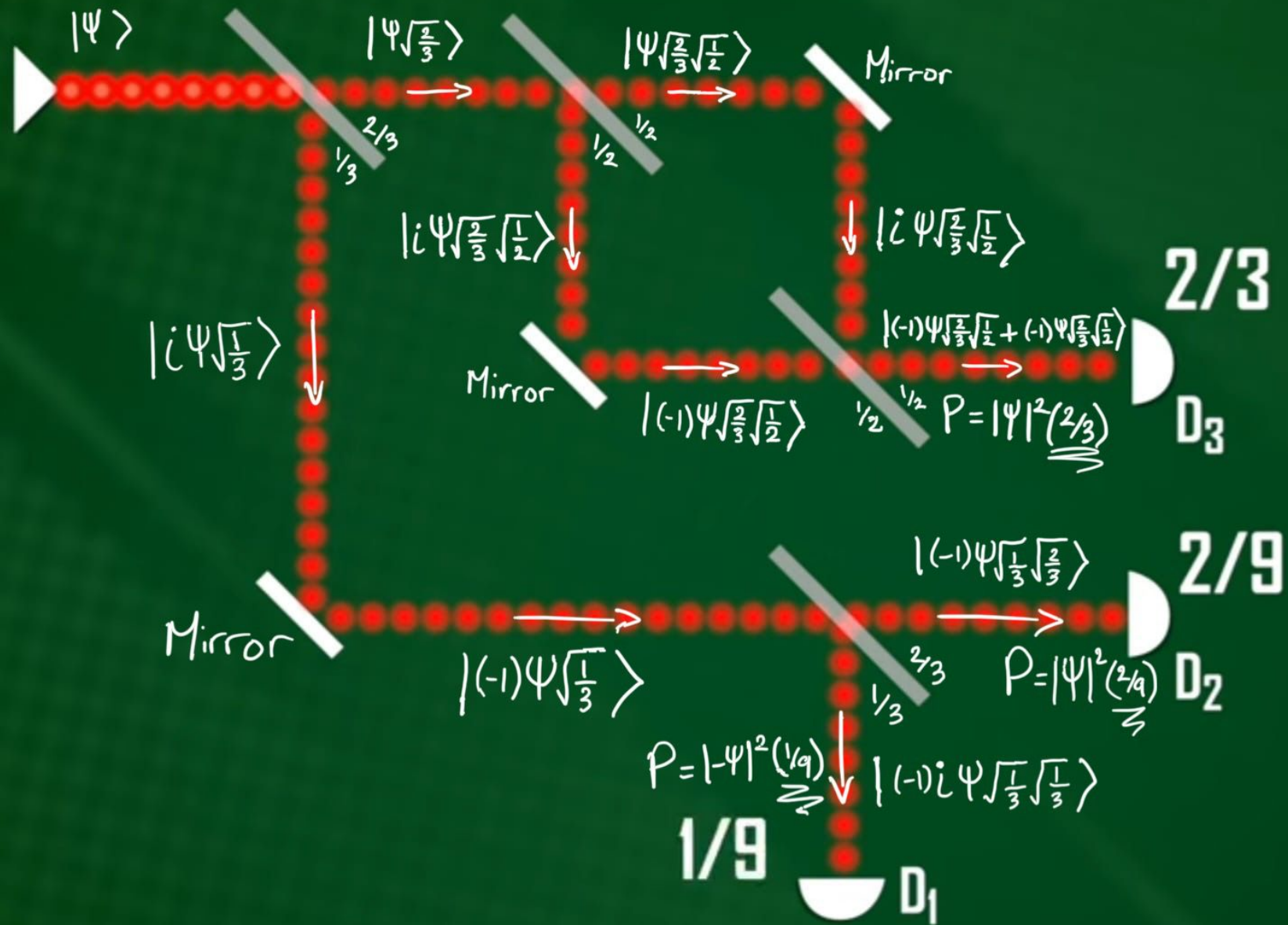
Creating a loop on detector No. 2
massively increases efficiency

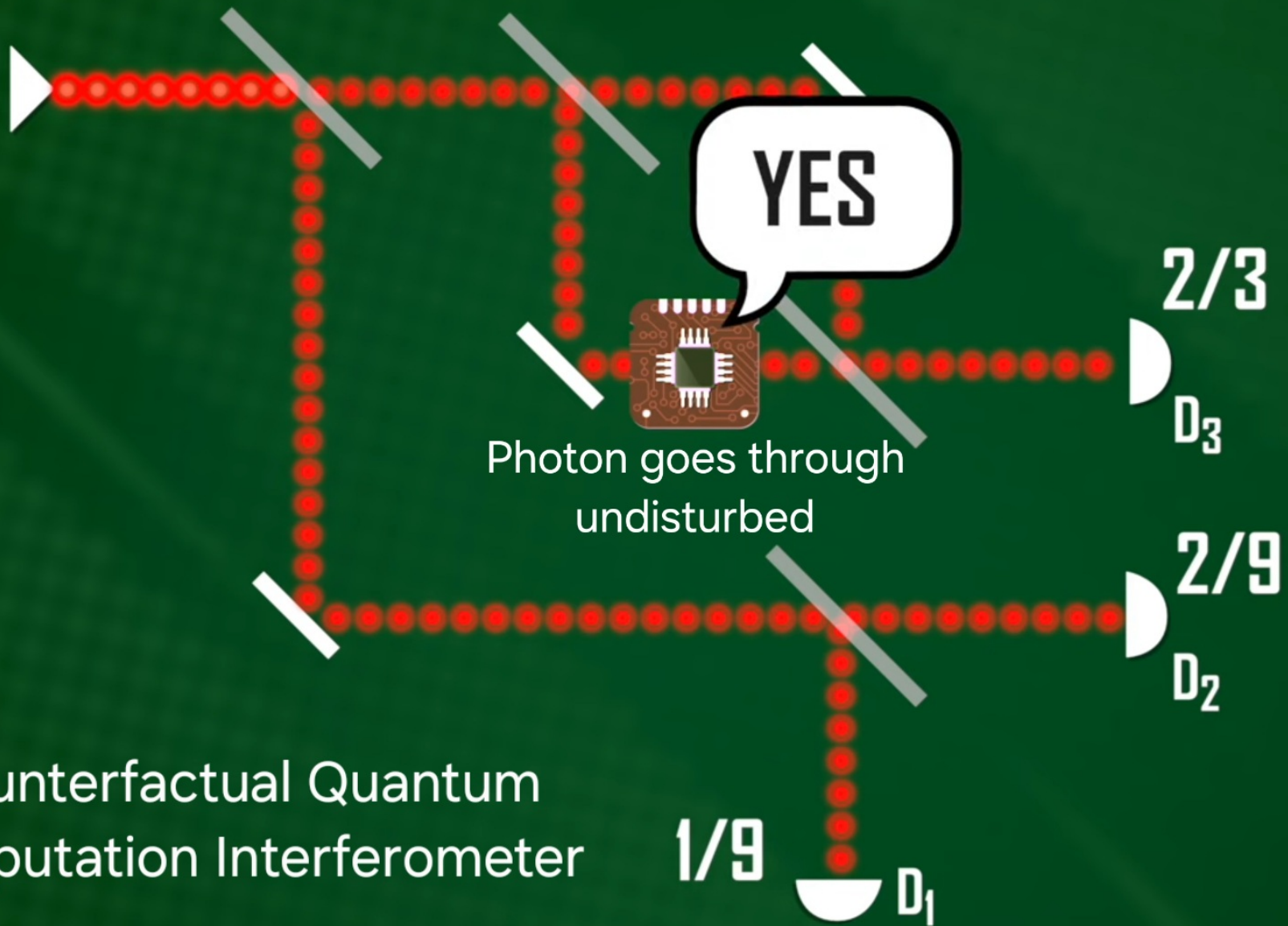


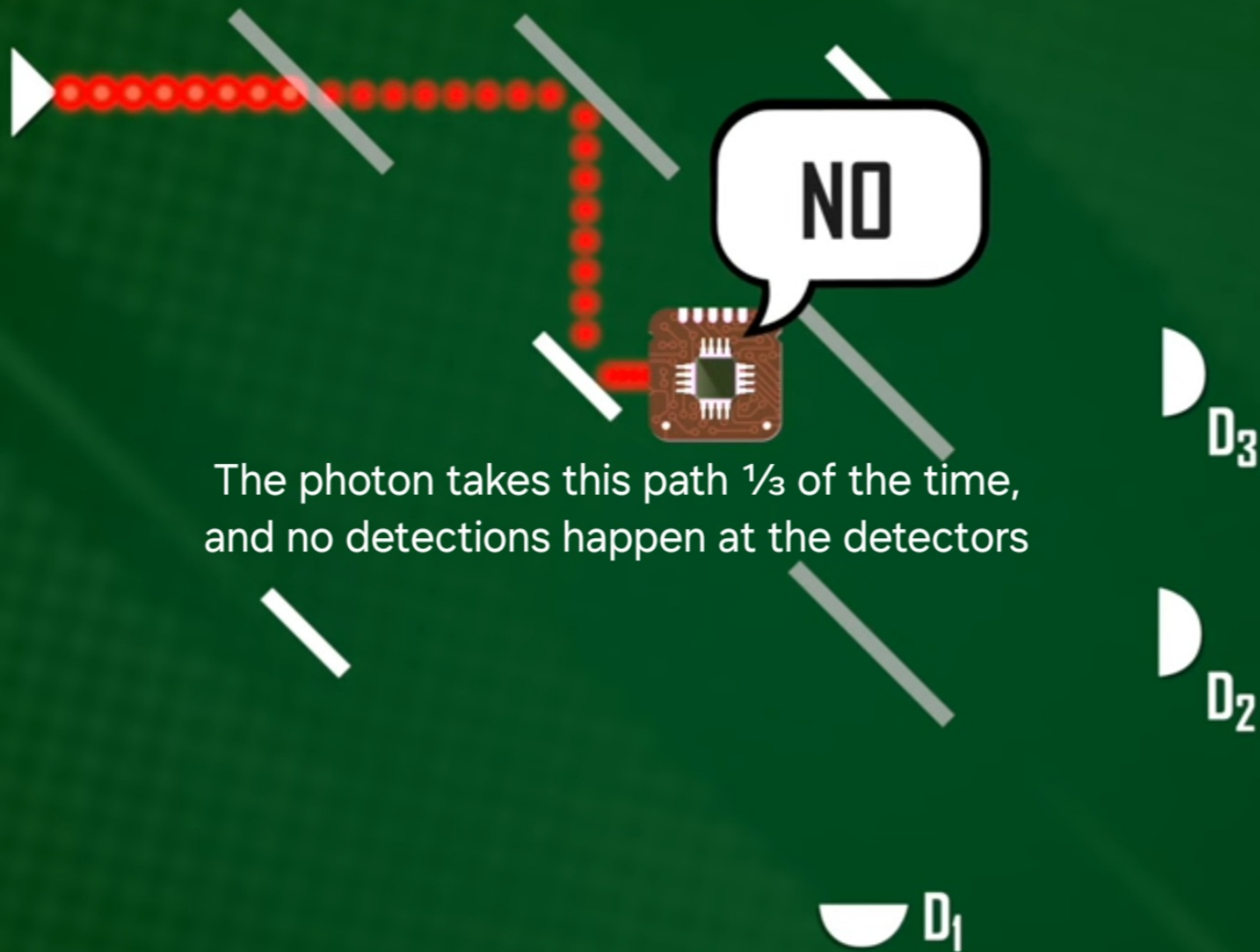




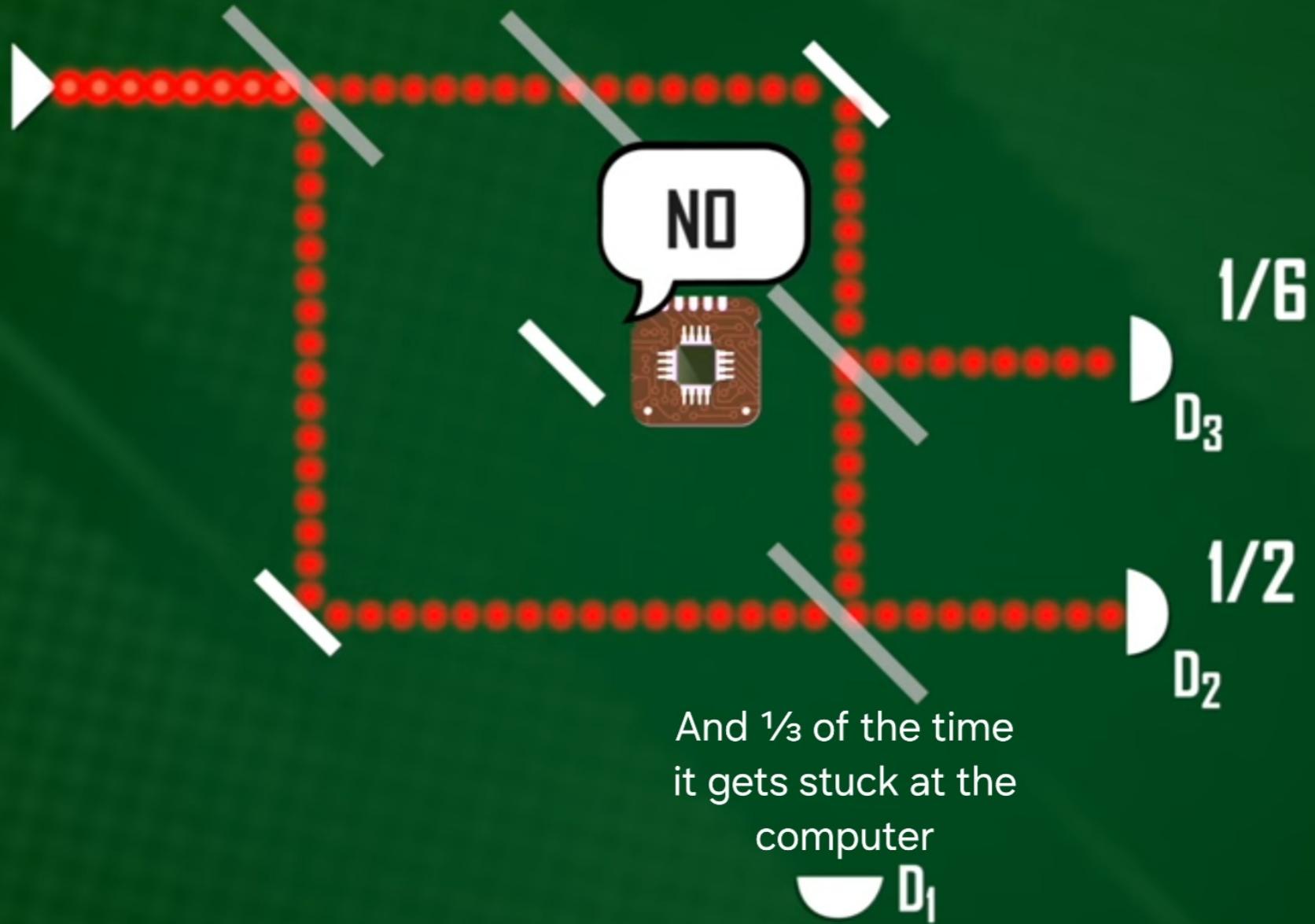
Nested/Chained
Mach-Zehnder Interferometer







The photon takes this path $\frac{1}{3}$ of the time,
and no detections happen at the detectors



So the only time a detection happens at D1 is when the answer is yes

YES

But this photon did not interact with the computer, only the wavefunction kind of did

