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The path to ignition within the US inertial confinement fusion program

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The National Ignition Campaign (NIC) is a multi-institutional effort to demonstrate thermonuclear ignition within the US inertial confinement fusion program. The NIC, led by Lawrence Livermore National Laboratory, leverages on a broad effort that includes many US universities and national laboratories. The goal is to ignite a DT cryogenic capsule on the National Ignition Facility to achieve a thermonuclear yield of several megajoules. To achieve ignition, the NIC encompasses several experimental activities focused on the hohlraum energetics, shock timing, cryogenic THD (tritium-hydrogen-deuterium) surrogate implosions and, finally, 50-50 DT cryogenic implosions. With input from my LLNL and LLE colleagues, I will (attempt to) provide a brief summary of the NIC status.