

Many conventional downhole tools, designed for the comparatively shallow and simple wells of past decades, are difficult to actuate from the surface in deep or complex wells. Mechanical or hydraulic actuation in these cases can require operators to make multiple intervention trips downhole, driving up operational expenditure (OPEX) and threatening the economic vitality of the wells. The industry's search for more efficient and reliable downhole control systems and tools has led to a growing interest in radio frequency identification (RFID) technology.