

---

# Lights Out 3x3

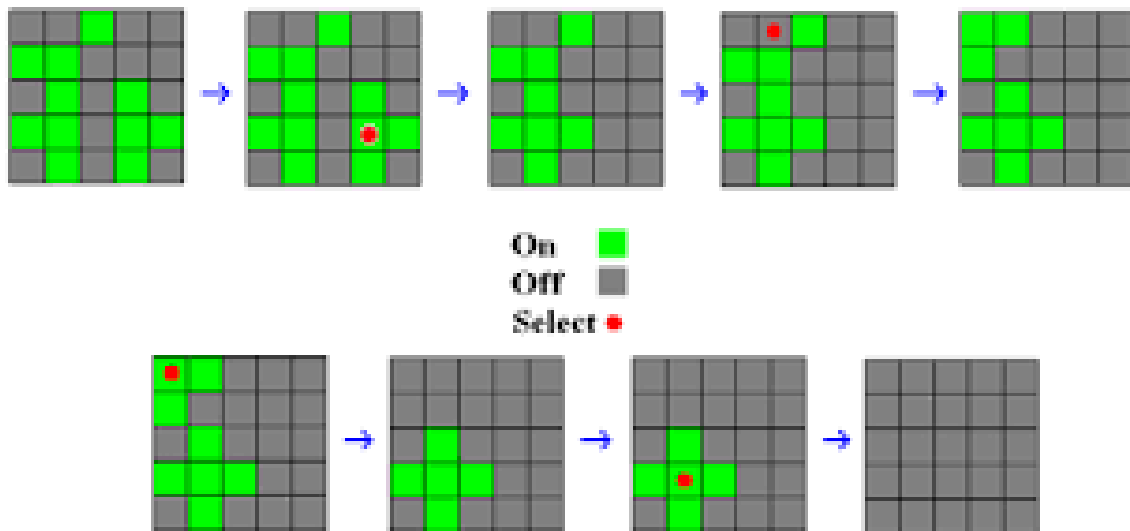
Jorge Márcio Lopes Costa

---

26/02/2020

Lights Out is a puzzle game consisting of a grid of lights that are either on or off. Pressing any light will toggle it and its adjacent lights. The goal of the game is to switch all the lights off.

Example:



I implemented a quantum circuit with Grover's algorithm that solves any 3x3 board. In our case, the test input and the expected answer are:



input: [0, 0, 0, 1, 0, 1, 1, 1, 0]  
output: [1, 0, 0, 1, 1, 0, 0, 0, 0]

