Egymillió év egy óra alatt

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RSA-2048
Challenge
Problem

Klasszikus

1 milliárd év

Kvantum

100 másodperc


Élelmiszer-
termelés


Klímaváltozás

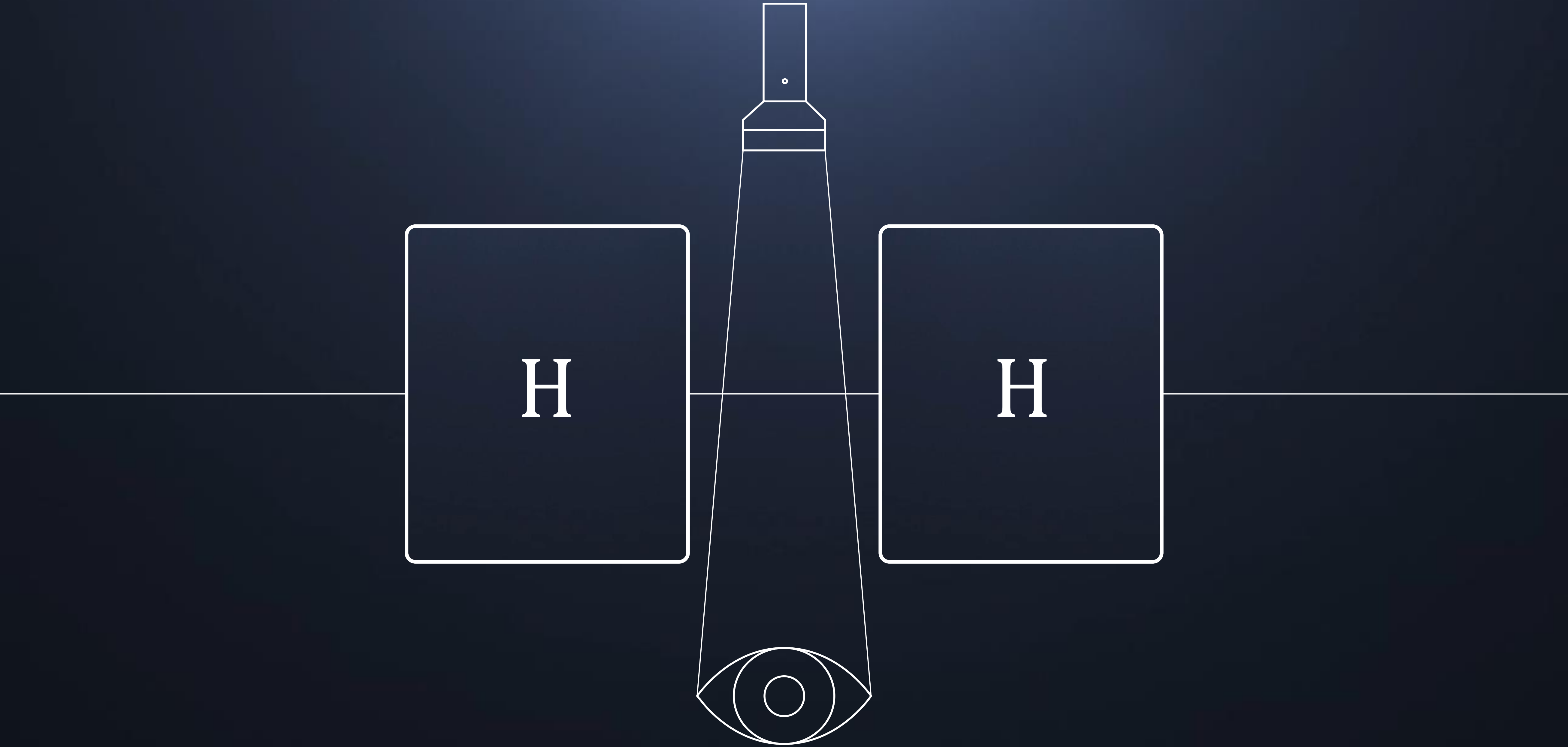

Anyag-
tudomány


...A jövő
(ld. lézer)

NOT

H


H
H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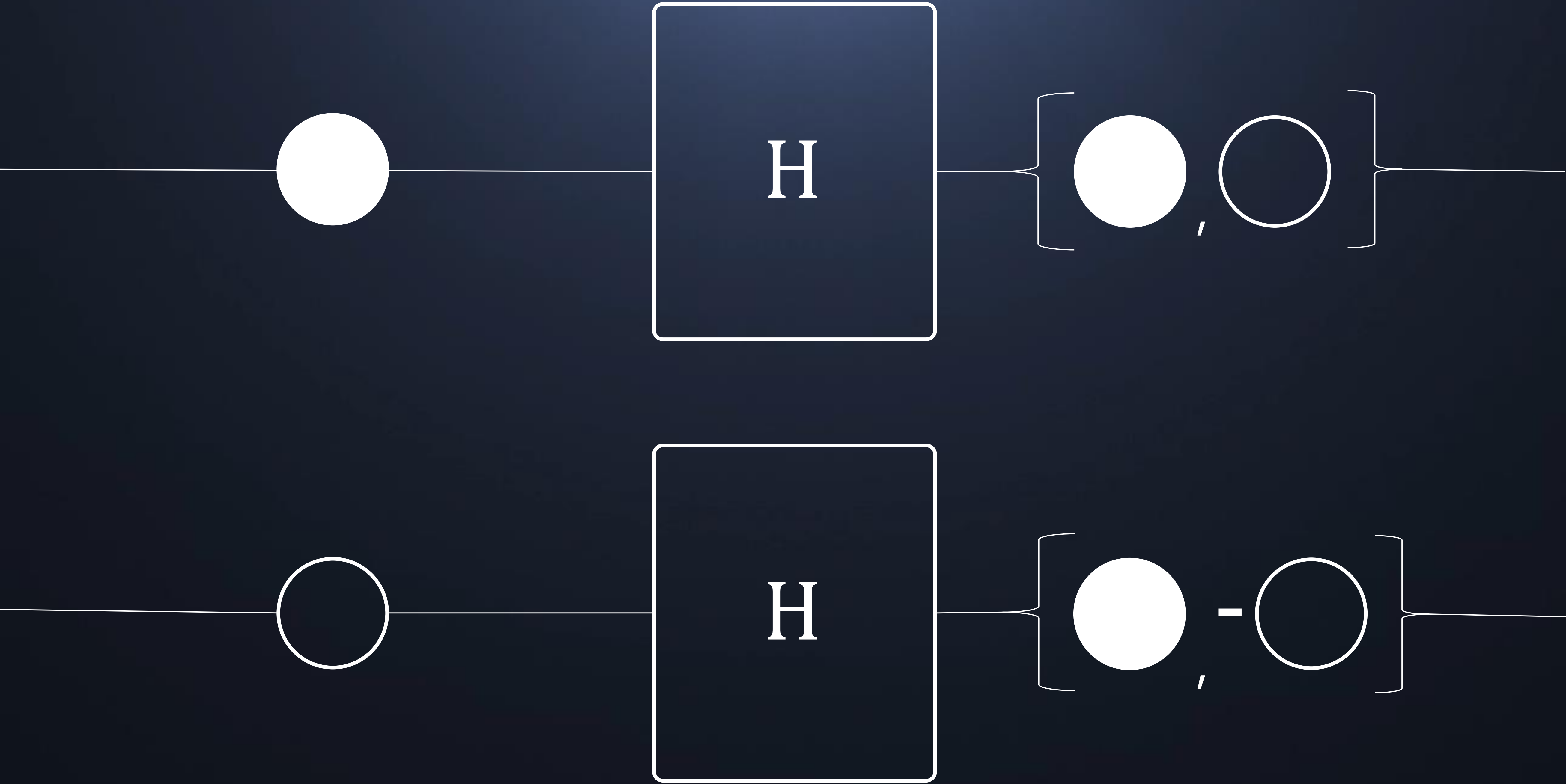
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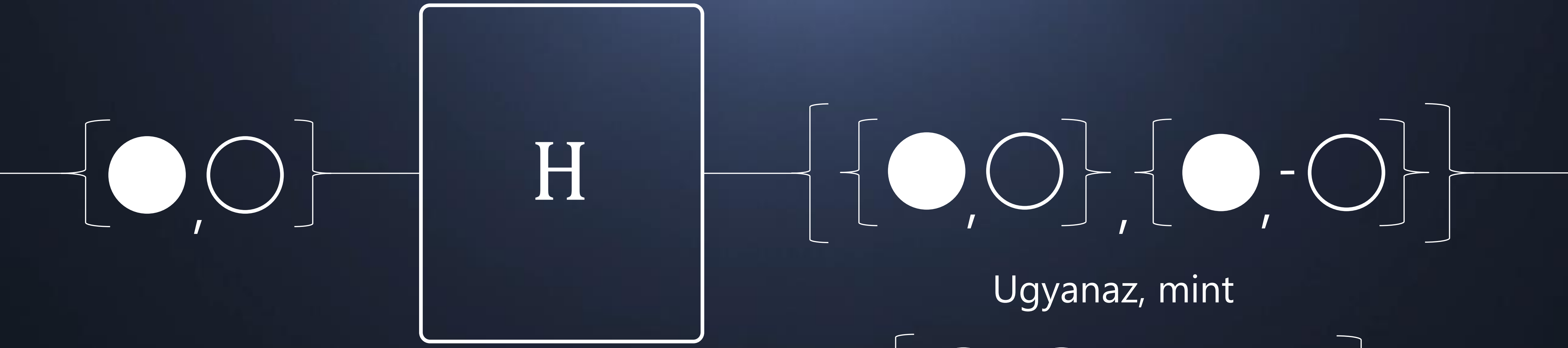

Ugyanaz, mint

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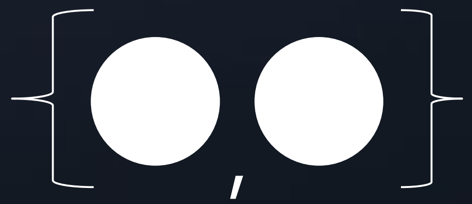

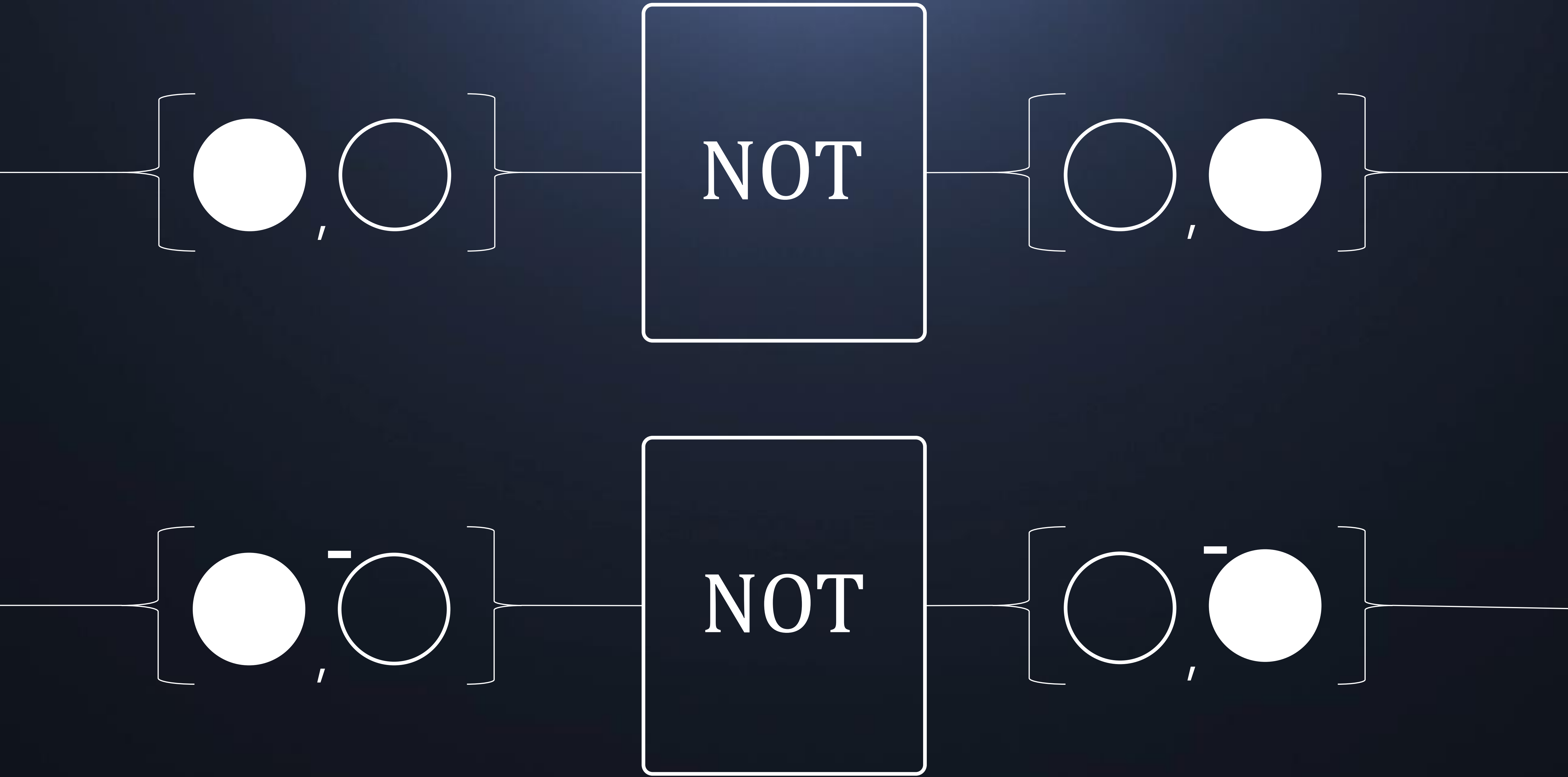
NOT
NOT

Microsoft:
Skálázható
kvantumszámítógép

Mélyűr: -270°C
Kvantum: -273.14°C

Microsoft Q#

```
/// ## there
/// A qubit intitially in the |0⟩ state that we want to send
/// the state of msg to.
operation Teleport(msg : Qubit, there : Qubit) : () {
    body {

        using (register = Qubit[1]) {
            // Ask for an auxillary qubit that we can use to prepare
            // for teleportation.
            let here = register[0];

            // Create some entanglement that we can use to send our message.
            H(here);
            CNOT(here, there);

            // Move our message into the entangled pair.
            CNOT(msg, here);
            H(msg);

            // Measure out the entanglement.
            if (M(msg) == One)  { Z(there); }
            if (M(here) == One) { X(there); }

            // Reset our "here" qubit before releasing it.
            Reset(here);
        }

    }
}
```

microsoft.com/quantum

Q is for Quantum – Terry Richards

Minecraft + qCraft