

Quantum Computing

Lab 3. Error Correction

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```
[1]: from qutip import *  
import numpy as np
```

Fault Tolerant Simple Gates

Consider the [CNOT circuit](#).

Use a bit-flip code to create a fault-tolerant CNOT gate (against a single bit-flip).

Similarly, what would be a fault-tolerant H , X or Z gate be?

Solution

- [Fault Tolerance CNOT circuit](#)
- In the other cases: ?