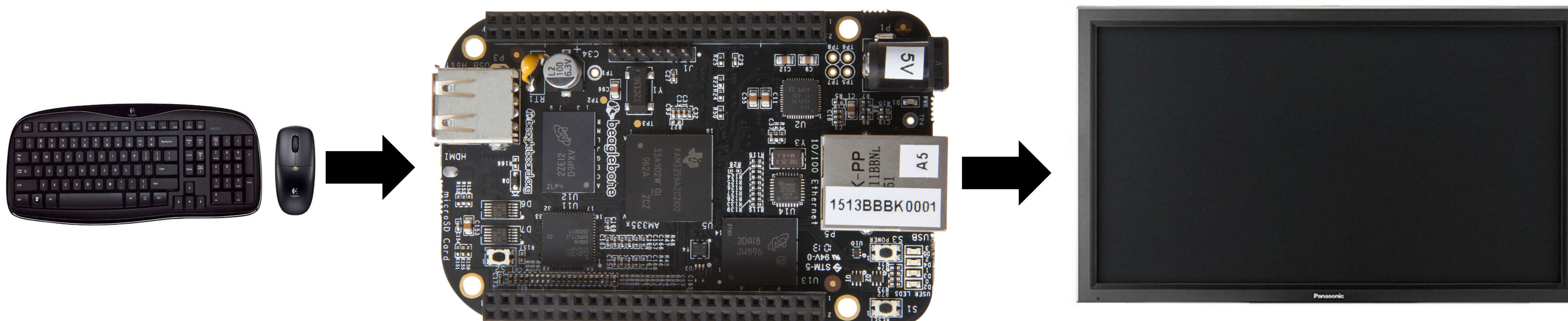


# TESTING OF DIGITAL CIRCUITS USING BEAGLEBONE BLACK

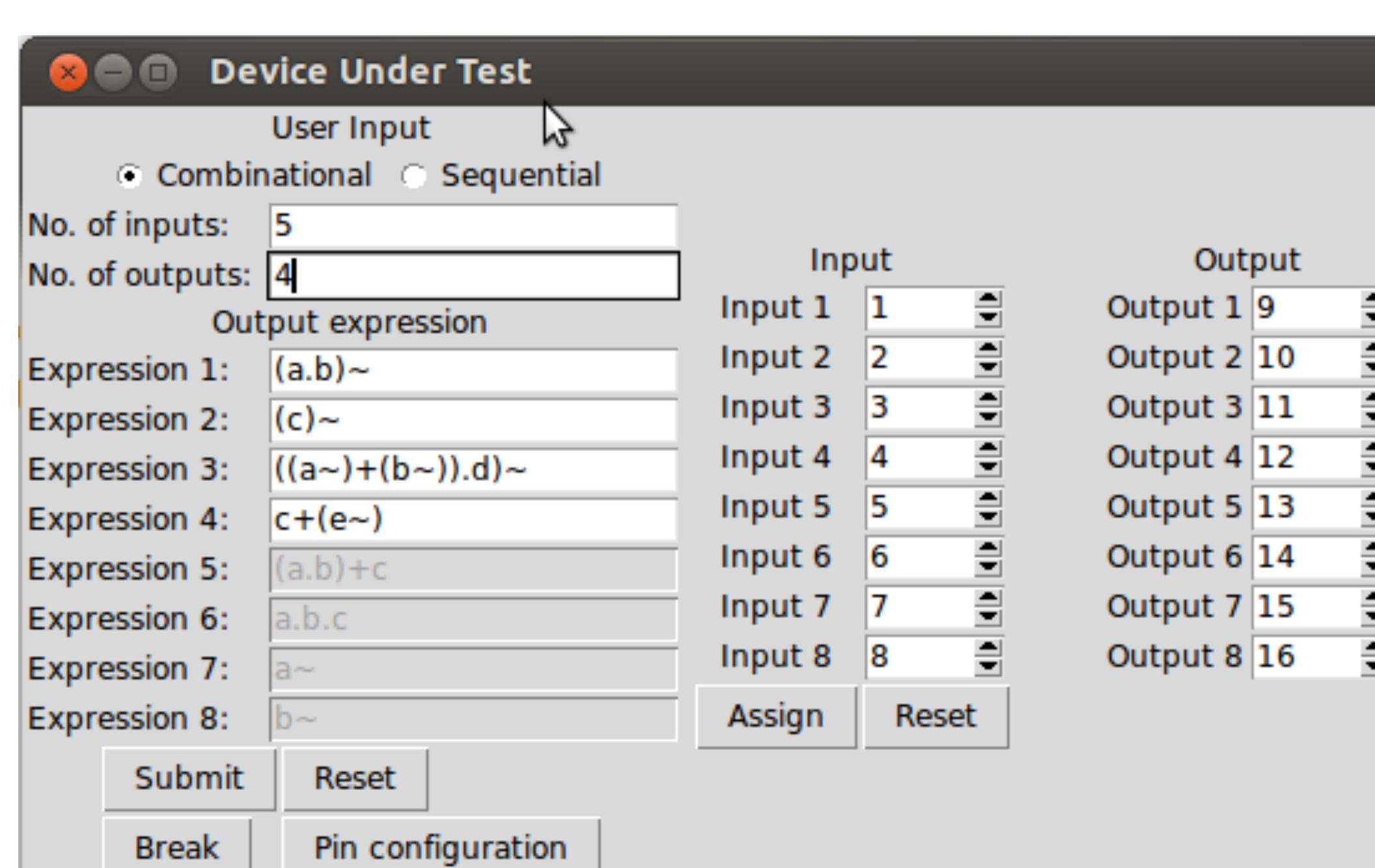
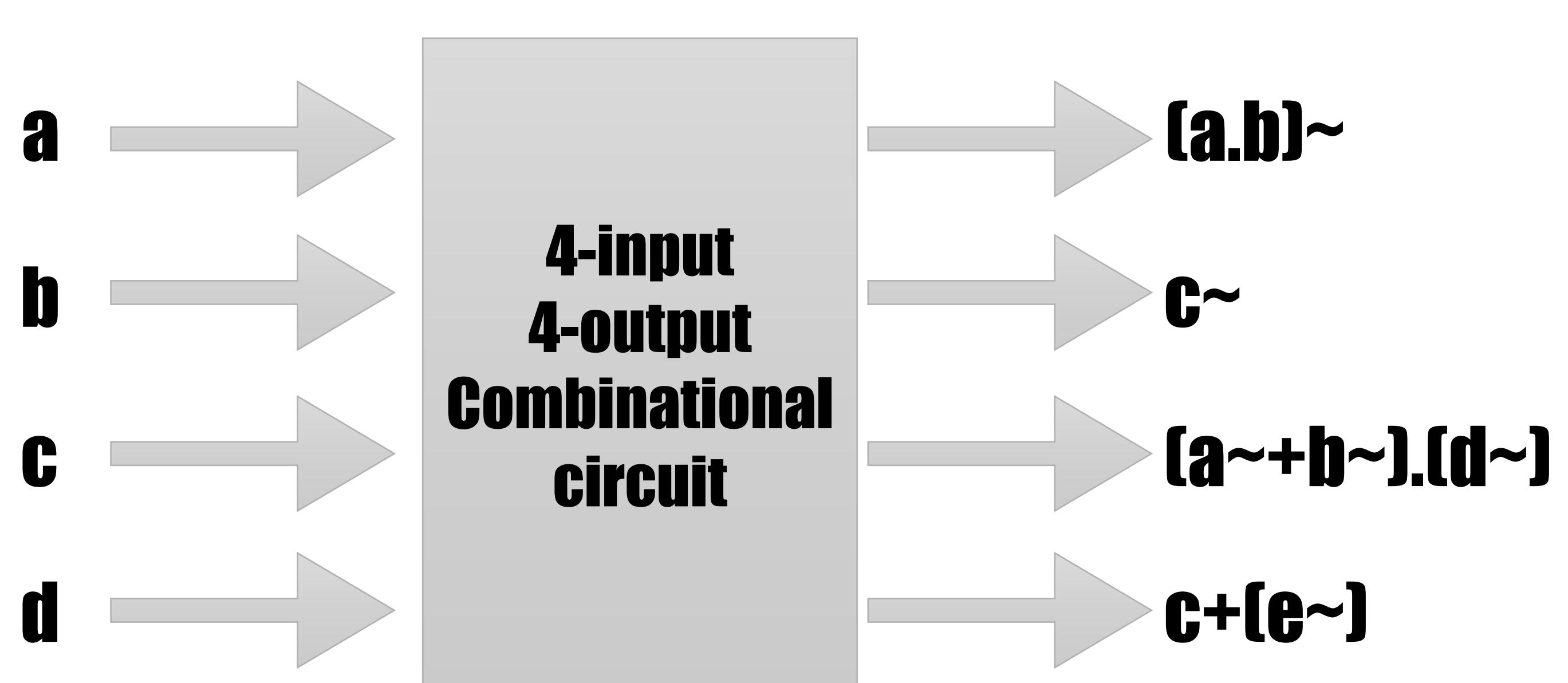
## BLOCK DIAGRAM



## COMBINATIONAL CIRCUITS

Algorithm:

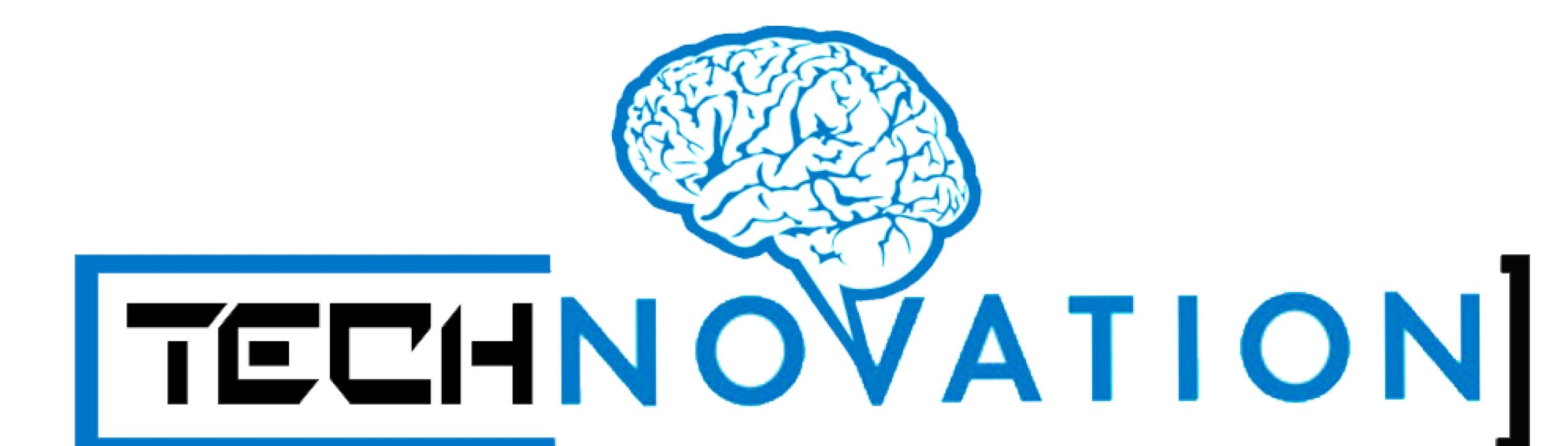
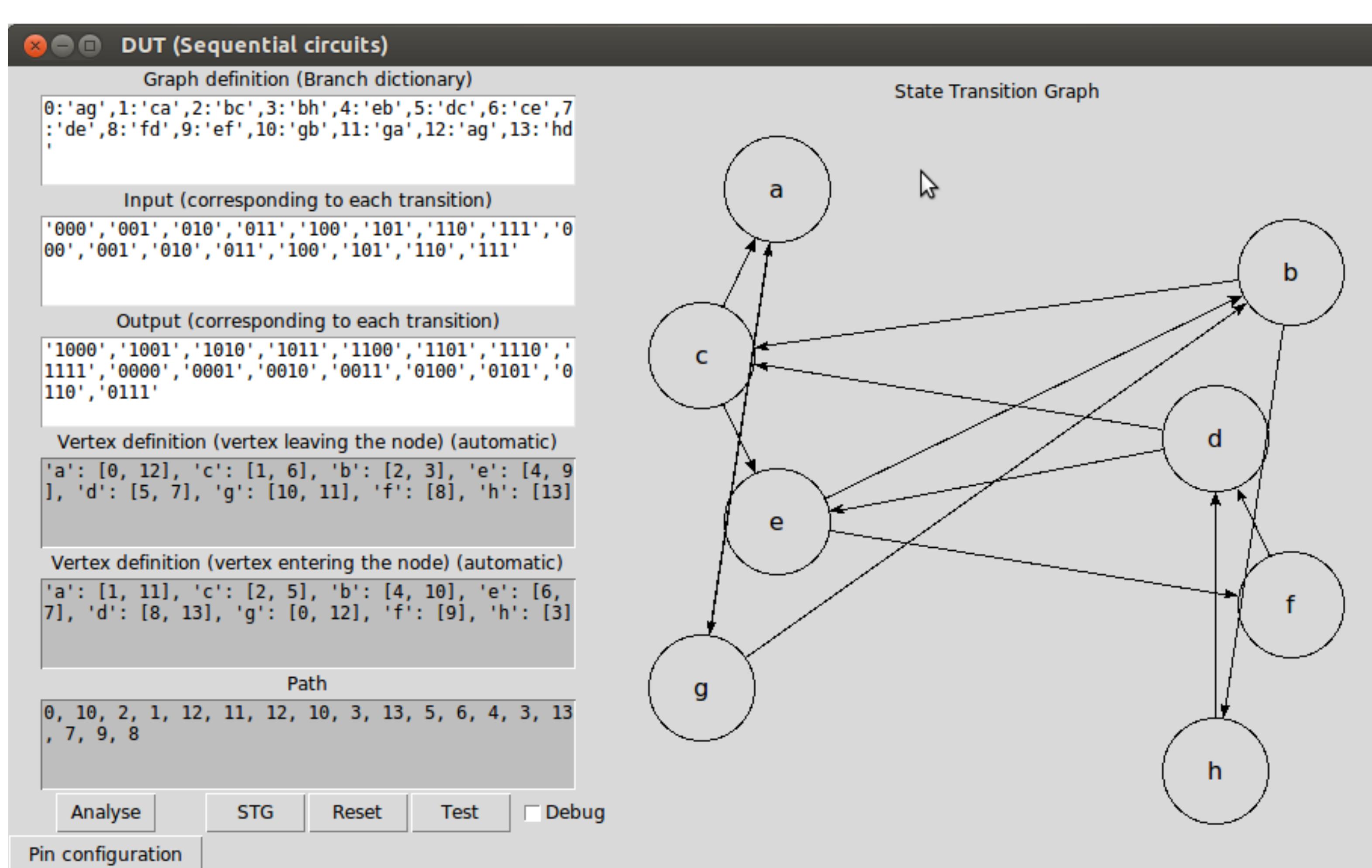
1. Define software model of combinational circuit
2. Input and output pin configuration
3. Generate test input pattern
4. Verify the experimental and theoretical output of circuit
5. Print error report



## SEQUENTIAL CIRCUIT

Algorithm:

1. Define State Transition Graph (adjacency matrix, input and output corresponding to each transition)
2. Generate input test pattern for shortest closed path that visits every edge of directed graph
3. Verify the experimental and theoretical output of circuit
4. Print error report at faulty transition



## COMPONENTS REQUIRED

Beaglebone Black  
Keyboard  
Display unit

## COST

₹ 5000

## BENEFITING

- Research Scholars
- Students
- Labs
- Industries