# AUTHORS JAY CONVERTINO DATES 2024/12/09 INFORMATION

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Cocotb test bench

**Brief** 

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### **FUNCTIONS**

# random\_bool

def random\_bool()

Return a infinte cycle of random bools

Returns: List

# start\_clock

```
def start_clock(
dut
)
```

Start the simulation clock generator.

### **Parameters**

**dut** Device under test passed from cocotb test function

# reset dut

```
async def reset_dut(
dut
)
```

Cocotb coroutine for resets, used with await to make sure system is reset.

# single\_word

```
@cocotb.test()
async def single_word(
dut
)
```

Coroutine that is identified as a test routine. This routine tests for writing a single word, and then reading a single word.

### **Parameters**

**dut** Device under test passed from cocotb.

# full\_empty

# Coroutine that is identified as a test routine. This routine tests for writing till the fifo is full, # Then reading from the full FIFO. # # Parameters: # dut - Device under test passed from cocotb. @cocotb.test() async def full\_empty(dut):

# random ready

# Coroutine that is identified as a test routine. This routine tests for randomized ready from the sink. # # Parameters: # dut - Device under test passed from cocotb. @cocotb.test() async def random\_ready(dut):

# in\_reset

```
@cocotb.test()
async def in_reset(
dut
)
```

Coroutine that is identified as a test routine. This routine tests if device stays in unready state when in reset.

### **Parameters**

**dut** Device under test passed from cocotb.

# no\_clock

```
@cocotb.test()
async def no_clock(
dut
)
```

Coroutine that is identified as a test routine. This routine tests if no ready when clock is lost and device is left in reset.

### **Parameters**

**dut** Device under test passed from cocotb.