

# **tb\_cocotb\_axi\_lite.py**

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## **AUTHORS**

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## **DATES**

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## **INFORMATION**

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### **Brief**

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Cocotb test bench

### **License MIT**

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## **FUNCTIONS**

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### **random\_bool**

---

```
def random_bool()
```

Return a infinite 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.

### **increment\_test\_write**

---

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

Coroutine that is identified as a test routine. Write data to the device at the proper address and region.

#### Parameters

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

### **increment\_test\_random\_ready\_write\_data(dut):**

---

Coroutine that is identified as a test routine. Write data at the proper address and randomize the ram write channel ready.

#### Parameters

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

### **increment\_test\_random\_ready\_write\_addr**

---

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

Coroutine that is identified as a test routine. Random ready the write address channel.

#### Parameters

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

## increment\_test\_timeout\_no\_answer

---

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

Coroutine that is identified as a test routine. Timeout if no answer to write request.

### Parameters

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

## increment\_test\_random\_ready\_timeout\_no\_answer

---

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

Coroutine that is identified as a test routine. Randomize the ready on timeout tests.

### Parameters

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

## 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.