

# **tb\_cocotb.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.

### 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

---

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

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.

### 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.