

# 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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# sipo

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sipo

Convert serial data to parallel

## VARIABLES

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### idle\_read

---

self.\_idle\_read

---

Event trigger for cocotb read

## FUNCTIONS

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### **`_restart`**

---

```
def _restart(  
    self  
)
```

kill and restart `_run` thread.

### **`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 MSb`**

---

Coroutine that is identified as a test routine. Write data, on one clock edge, read on the next.

#### **Parameters**

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

### **`increment test LSB`**

---

Coroutine that is identified as a test routine. Write data, on one clock edge, read on the next.

### 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.