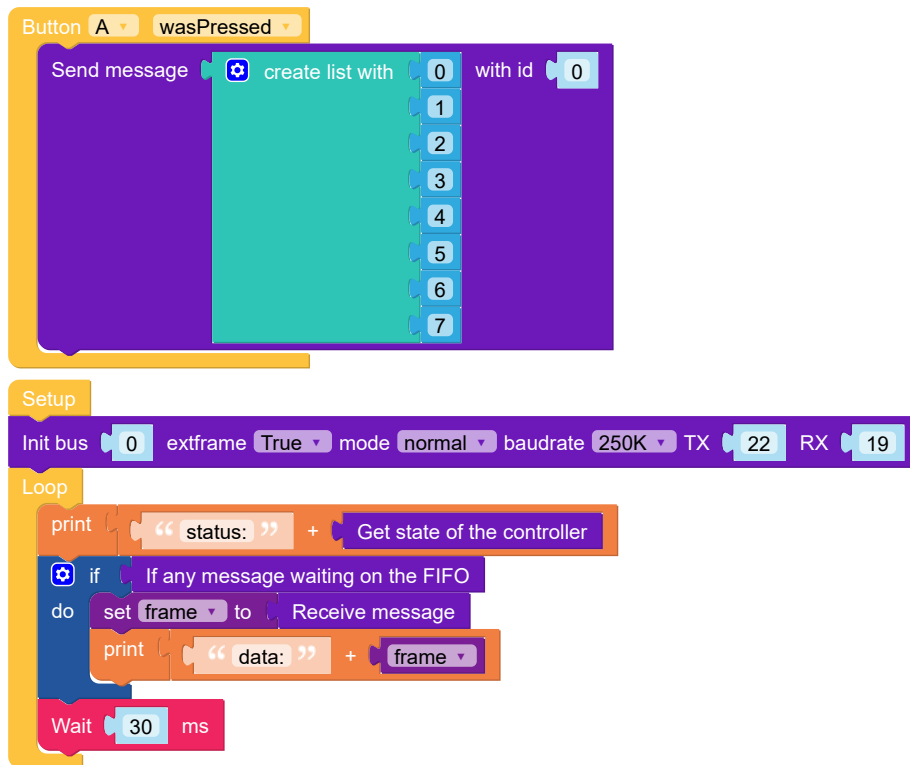


Atomic CAN Base

| Example

When button A is pressed, a CAN data frame [0, 1, 2, 3, 4, 5, 6, 7] (ID is 0) is sent, and the CAN bus status is continuously detected in the main loop



```

from m5stack import *
from m5ui import *
from uiflow import *
from base.CAN import CAN
import time
frame = None
atom_can = CAN()

def buttonA_wasPressed():
    global frame
    atom_can.send([0, 1, 2, 3, 4, 5, 6, 7], 0)
    pass
btnA.wasPressed(buttonA_wasPressed)

atom_can.can_init(0, extframe=True, mode=atom_can.NORMAL, baudrate=atom_can.BAUDRATE_250K,
tx_io=22, rx_io=19, auto_restart=False)
while True:
    print((str('status:') + str(atom_can.state()))))
    if atom_can.any():
        frame = atom_can.recv()
        print((str('data:') + str(frame)))
    wait_ms(30)
    wait_ms(2)

```

Base

API

Init bus extframe mode baudrate TX RX

```

from base.CAN import CAN
atom_can = CAN()
atom_can.can_init(0, extframe=True, mode=atom_can.NORMAL, baudrate=atom_can.BAUDRATE_250K,
tx_io=22, rx_io=19, auto_restart=False)

```

- Initialize the CAN bus, configure whether it is in extended frame mode, set the operating mode (normal mode, loopback mode, etc.), and set the baud rate.

If any message waiting on the FIFO

```
atom_can.any()
```

- Check if there is unread data in the FIFO.

Receive message

```
frame = atom_can.recv()
```

- Receive data.

Send message with id

```
atom_can.send([0, 1, 2, 3, 4, 5, 6, 7], id)
```

- Send a data frame with the specified ID. The ID length is 1 byte, and the data must be of type list or tuple, with a data frame length of 8 bytes.

Set filter bank mode message

```
atom_can.setfilter(0, CAN.FILTER_RAW_SINGLE, [])
```

- Set a filter group.

Get state of the controller

```
atom_can.state()
```

- Get the CAN controller status.

Clear RX queue

```
atom_can.clear_rx_queue()
```

- Clear the receive queue.

Clear TX queue

```
atom_can.clear_tx_queue()
```

- Clear the transmit queue.

Clear filter

```
atom_can.clearfilter()
```

- Clear the filter group.

Restart

```
atom_can.restart()
```

- Restart the CAN bus.

Deinit

```
atom_can.deinit()
```

- Stop the CAN bus.