CANHack Toolkit API *for* Python

canislabs.com
CTO blog kentindell.github.io

CANIS AUTOMOTIVE LABS

CANHack class

Creating

```
ch = CANHack(bit_rate=500)
```

Note: `bit_rate` can be 500, 250 or 125

Frames

```
ch.set_frame(can_id=0x7ff,
             remote=False,
             extended=False,
             data=None,
             set_dlc=False,
             dlc=0
             second=False)
```

Note:
- DLC set by default from `data` length
- `data` is 0..8 bytes
- `second` sets the Janus attack alternative value

```
ch.print_frame()
ch.send_frame(timeout=50000000,
              second=False,
              retries=0,
              repeat=1)
```

Janus attack

```
ch.send_janus_frame(sync_time=50,
                    split_time=155,
                    timeout=50000000,
                    retries=0)
```

Note:
- `split time` default is 62.5% (bit time is 249)
- `sync_time` default is 20%
- `timeout` default is about 17 seconds

Spoof attacks

```
ch.spoof_frame(timeout=50000000,
               overwrite=False,
               sync_time=0,
               split_time=0,
               second=False,
               retries=0,
               loopback_offset=93)
```

Note:
- if `second` is `True` then will spoof using a Janus frame
- if `overwrite` is `True` then sends an error passive spoof
- `loopback_offset` only used if `overwrite` is `True`

Bus Off and Error Passive attacks

```
ch.error_attack(repeat=2,
                timeout=50000000)
```

Note: Attacks the frame set with `set_frame()`

Freeze Doom Loop attack

```
ch.freeze_doom_loop_attack(repeat=2,
                           timeout=50000000)
```

Note: Attacks the frame set with `set_frame()`

Double Receive attack

```
ch.double_receive_attack(repeat=2,
                         timeout=50000000)
```

Note: Attacks the frame set with `set_frame()`

Diagnostics

```
ch.set_can_tx(recessive=False)
```

Returns: `True` if RX is recessive

```
ch.send_square_wave()
```

Note: Sends a square wave on TX for 160 bit times

```
ch.loopback()
```

Note: Waits for falling edge then transmits on TX what is read on RX for 160 bit times

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