```
messageThreadExecutor.callAsync([] () { std::cout << "Hello World!" << std::endl; });
```

```
class AsyncCaller {
public:
    void callAsync(std::function<void()> && lambda) {
        auto success = queue.push(std::move(lambda));
        assert (success);
    }




private:
    fifo<std::function<void()>> queue;
};

AsyncCaller messageThreadExecutor;
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    void process() {
        std::function<void()> lambda;
        while (queue.pop (lambda))
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AsyncCaller messageThreadExecutor;

void timerCallback() {
    messageThreadExecutor.process();
}
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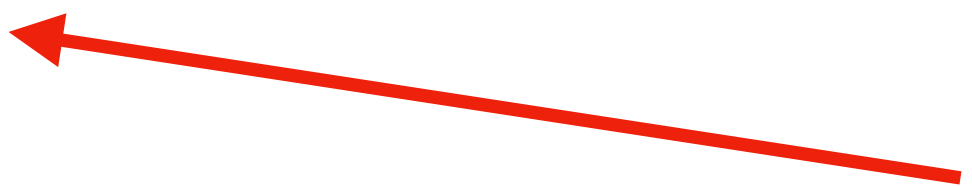
Farbot's AsyncCaller

Called on realtime threads



Must not wake-up non-realtime thread as signalling another thread is not lock-free

Lambdas are executed on a timer on the non-realtime thread

Pops lambdas from the queue

User needs to ensure that lambda is real-time movable

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Farbot's AsyncCaller

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FIFO Summary

- Scenario:
  - Data is big: `std::atomic<>::is_always_lock_free == false`
  - Transferring objects between real-time and non-real-time threads
- Trade-off:
  - Static FIFO size
  - Behaviour when FIFO full (block/drop/overwrite)
  - Potential overhead of copying when writing and reading from the FIFO
- Examples:
  - Logging, writing input to disk (recording), reading from disk, dispatching