```cpp
#pragma once

#include <thread>

enum class ControllerState {
    CTR_ASK = 0b00,
    CTR_UP,
    CTR_DOWN,
    CTR_WAIT_LATCH,
    CTR_WAIT_REPLY,
    CTR_WAIT_DCLOSE,

    CTR_DC1 = 0b110,
    CTR_DC2
};

struct Controller {
    std::thread mThread;
    ControllerState mState;

    Controller();
    ~Controller();

    void start();

};
```