

My first Traffic Light

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UNIMORE
UNIVERSITÀ DEGLI STUDI DI
MODENA E REGGIO EMILIA

High Performance
Real Time **Lab**



nixCraft



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"Commenting your code is like cleaning your bathroom - you never want to do it, but it really does create a more pleasant experience for you and your guests." - Ryan Campbell

#quoteoftheday



Traffic light: specs

Normal cycle

- › Red
- › Wait time1
- › Green
- › Wait time2
- › Yellow (+Green?)
- › Wait time3

Repeat

Error state

(blinking yellow)

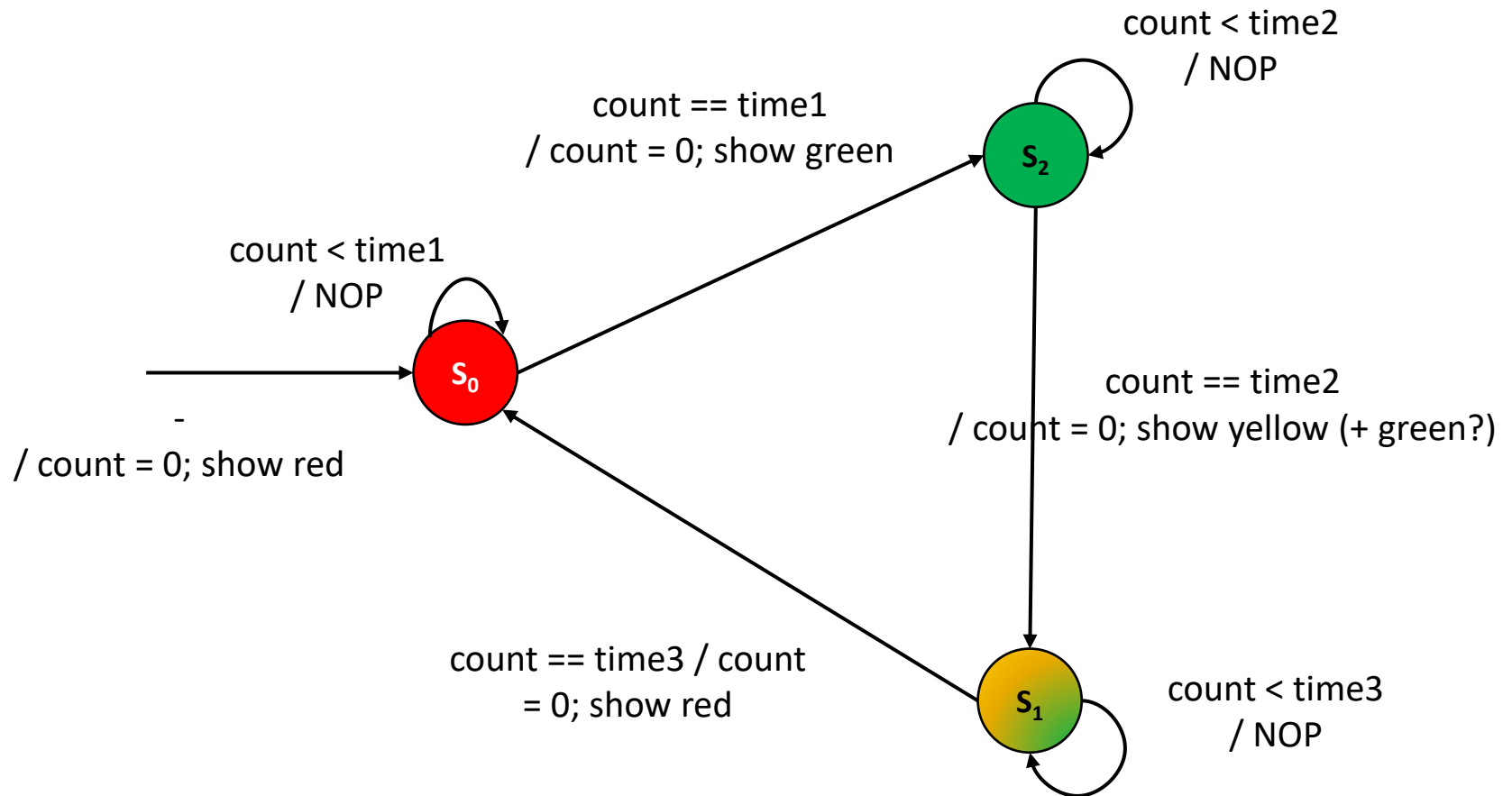
- Yellow
- Wait time4
- All off
- Wait timer4

Repeat



Normal cycle

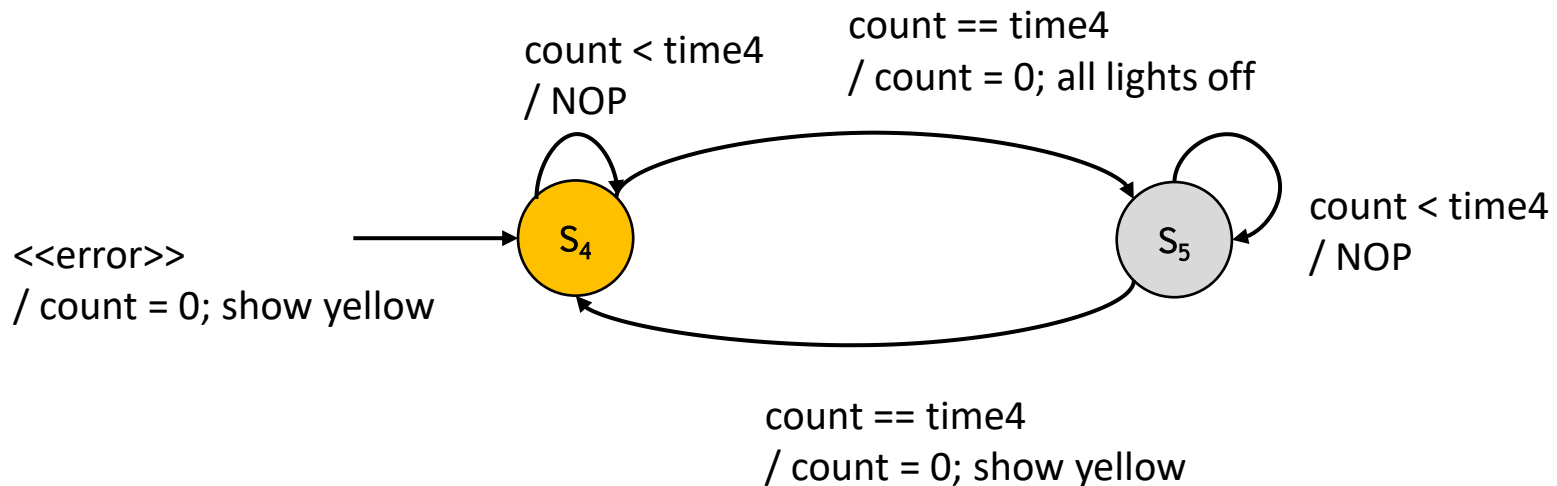
> $\text{count} = \{ 0 \dots N \}$





Error states

- $\text{count} = \{ 0 \dots N \}$
- Find a possible trigger for `<<error>>`
 - e.g., when we turn on RED for 10 times





TODO list (repo)

Students maintainer (who?)

- › Update branch *students* with latest *master*
- › Make some order, in case

Every student

- › Create personal branch from *students* (`git checkout -b NAME`)
 - Or update if already existing (`git merge students`)
- › When code is stable, create pull request to *students*

When (if) want to push on *master*

- › Create branch *master_patch* with only relevant modifications
- › Create pull request



Test Driven Development

Unit Testing

- › Test single components / functionalities with no dependencies
- › “White box” testing
- › Can use mocks

Integration Testing

- › Test one or more functionalities together
- › Extreme/all together: “Big bang”
- › “Black box” testing, can use mocks

Functional/Behavioral testing

- › Assess against specs
- › Raise Tech Readiness Level (TRL) ≥ 6

References



Course website

- › http://hipert.unimore.it/people/paolob/pub/Industrial_Informatics/index.html

My contacts

- › paolo.burgio@unimore.it
- › <http://hipert.mat.unimore.it/people/paolob/>

Resources

- › Past labs
- › A small blog
 - www.google.com