

designing for physicality part 2

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www.hcibook.com/alan/

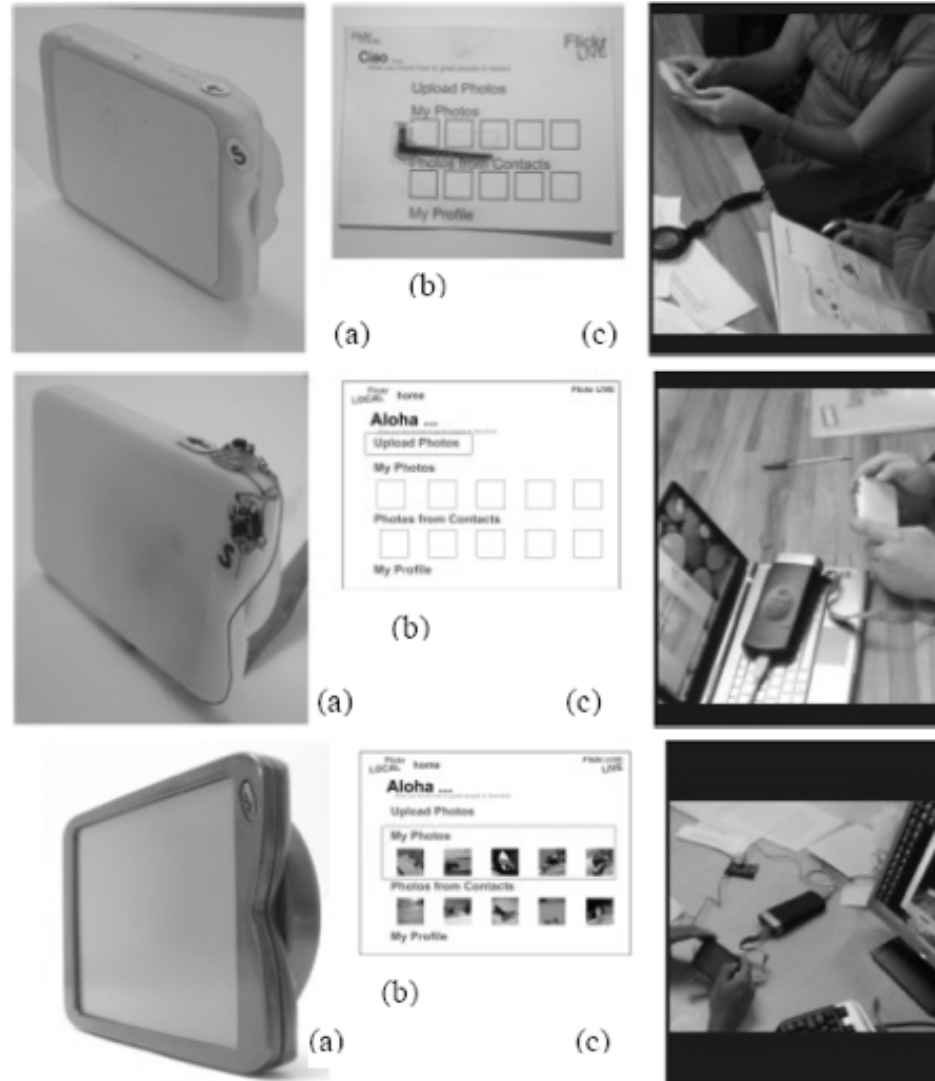
www.alandix.com

www.physicality.org



levels of fidelity in design

from paper prototype
to working mock-up



study the old to design the new

work with Masitah Ghazali
& DEPTH project

- look at ordinary consumer devices
 - washing machine, light switch, personal stereo
- why?
 - we are used to using them ourselves
 - they have been 'tested' by the marketplace
 - they embody the experience of designers



half empty?

other places ...

- Norman – DOET/POET
- Thimbleby – FSM for video, microwave

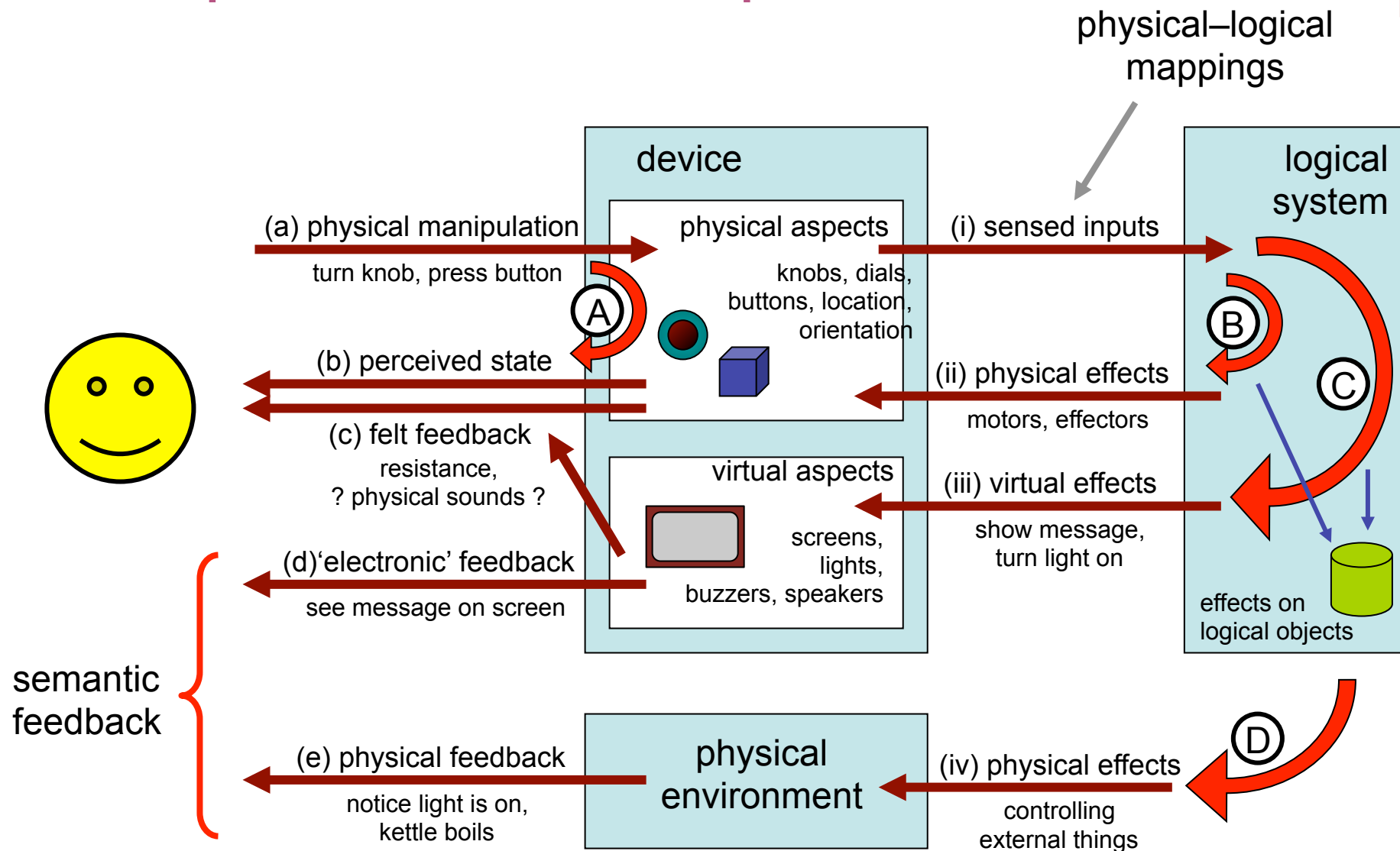
often used as HCI strawman

- emphasise for design flaws

we are looking for the good lessons

- how mundane devices exploit physicality

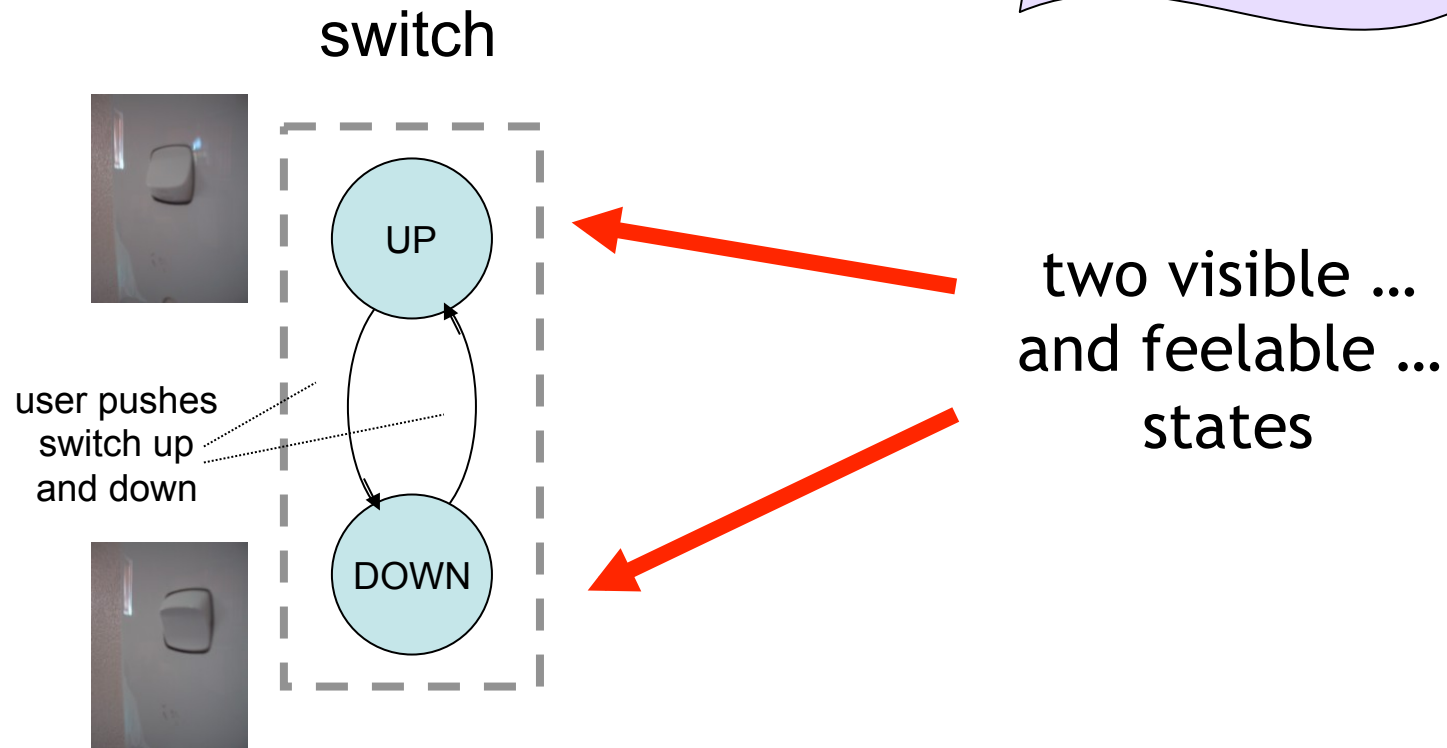
multiple feedback loops



the GUI fallacy ... semantic feedback is NOT enough

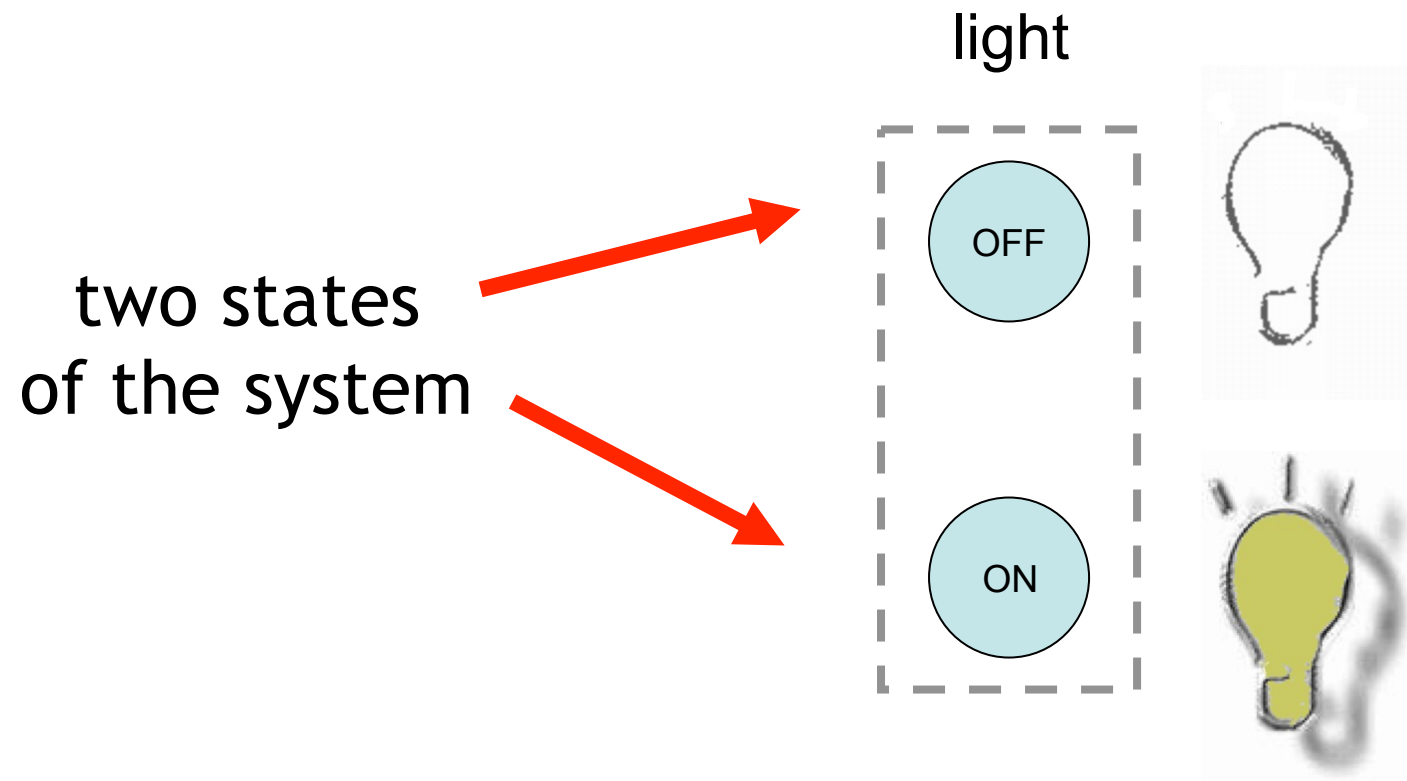
model physical device states the device 'unplugged'

physigram

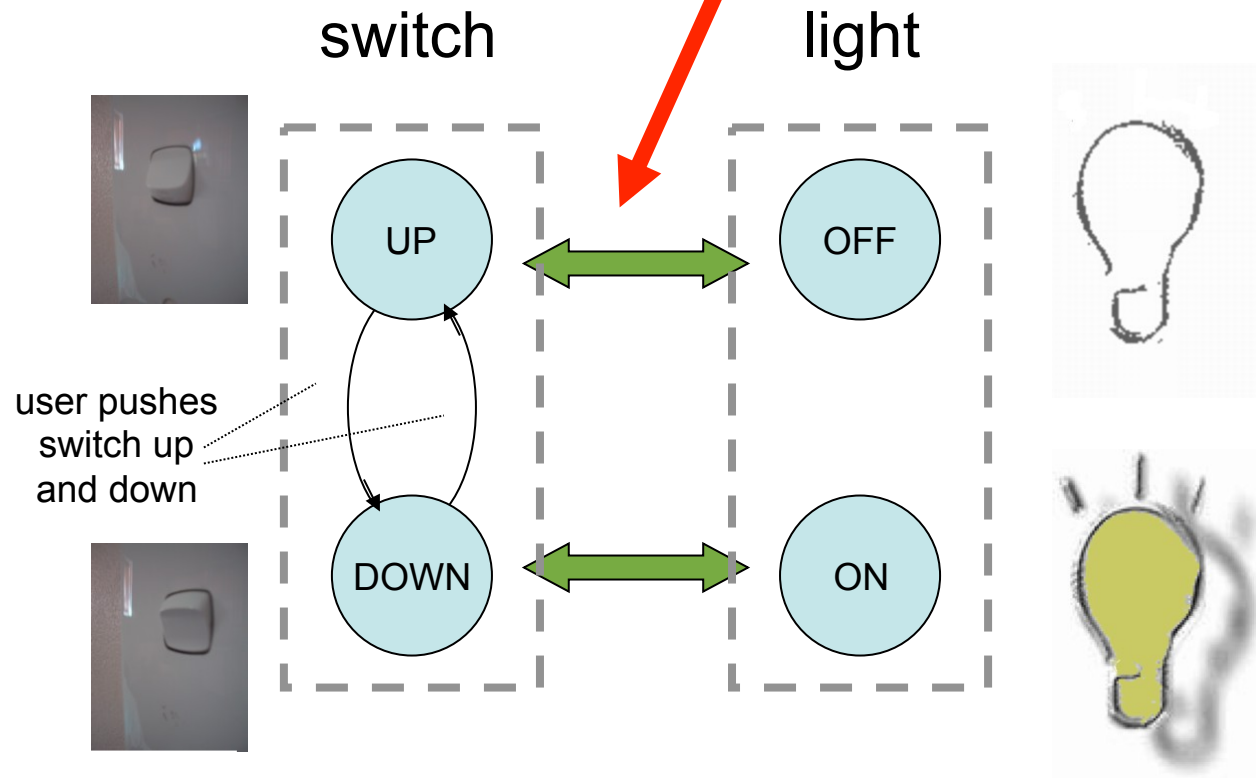


- the device 'unplugged'

model logical system



exposed state = mapping 1-1



particularly easy to understand and use
but not always 1-1

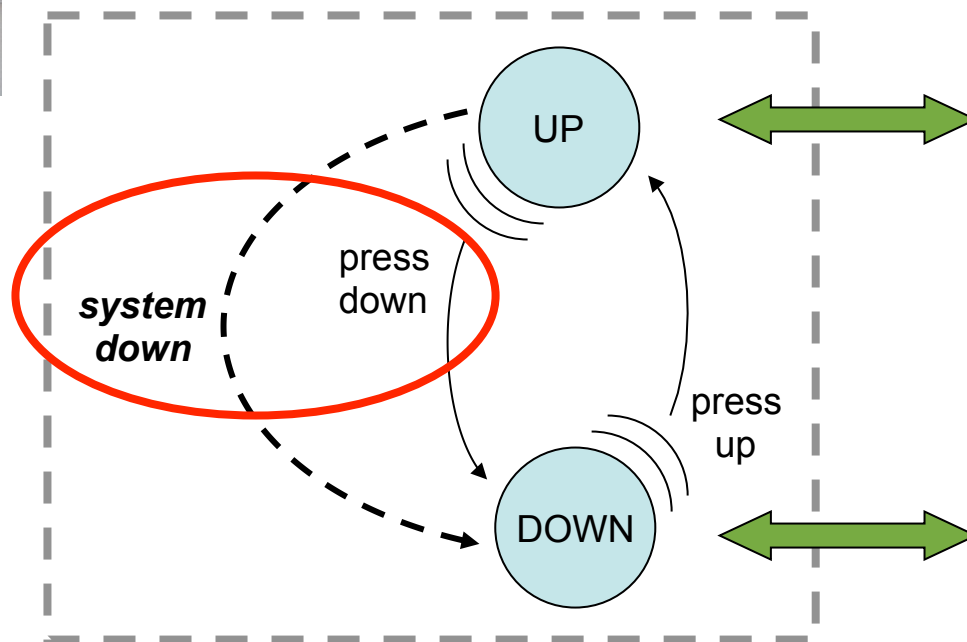
controlled state



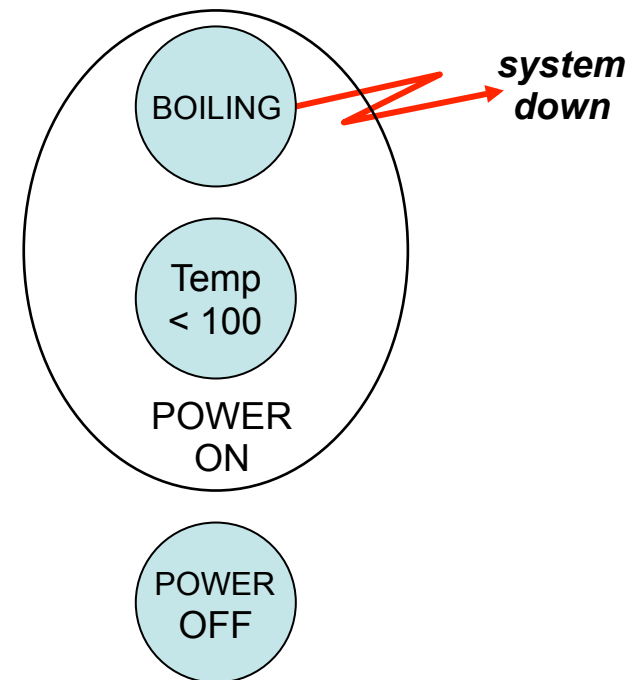
compliant interaction



kettle switch

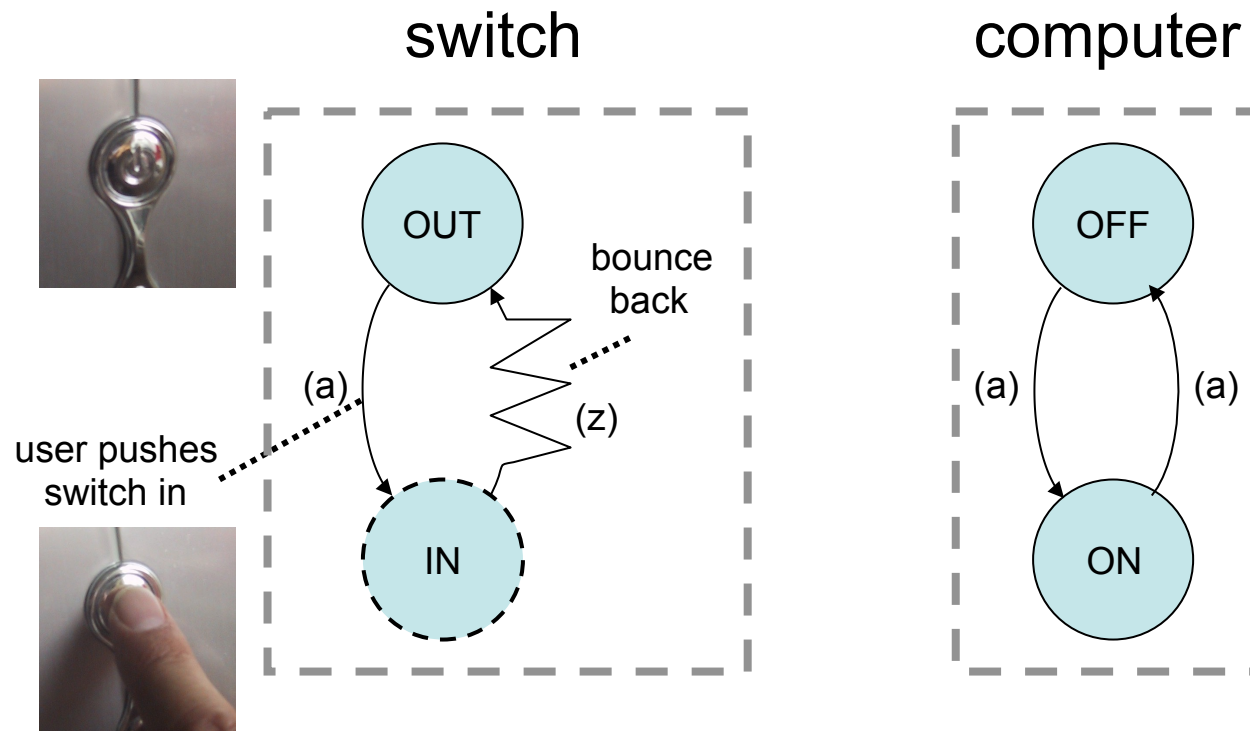


system state

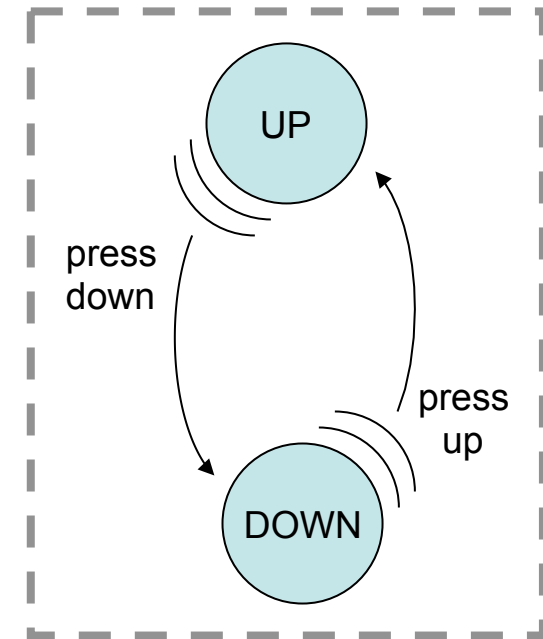
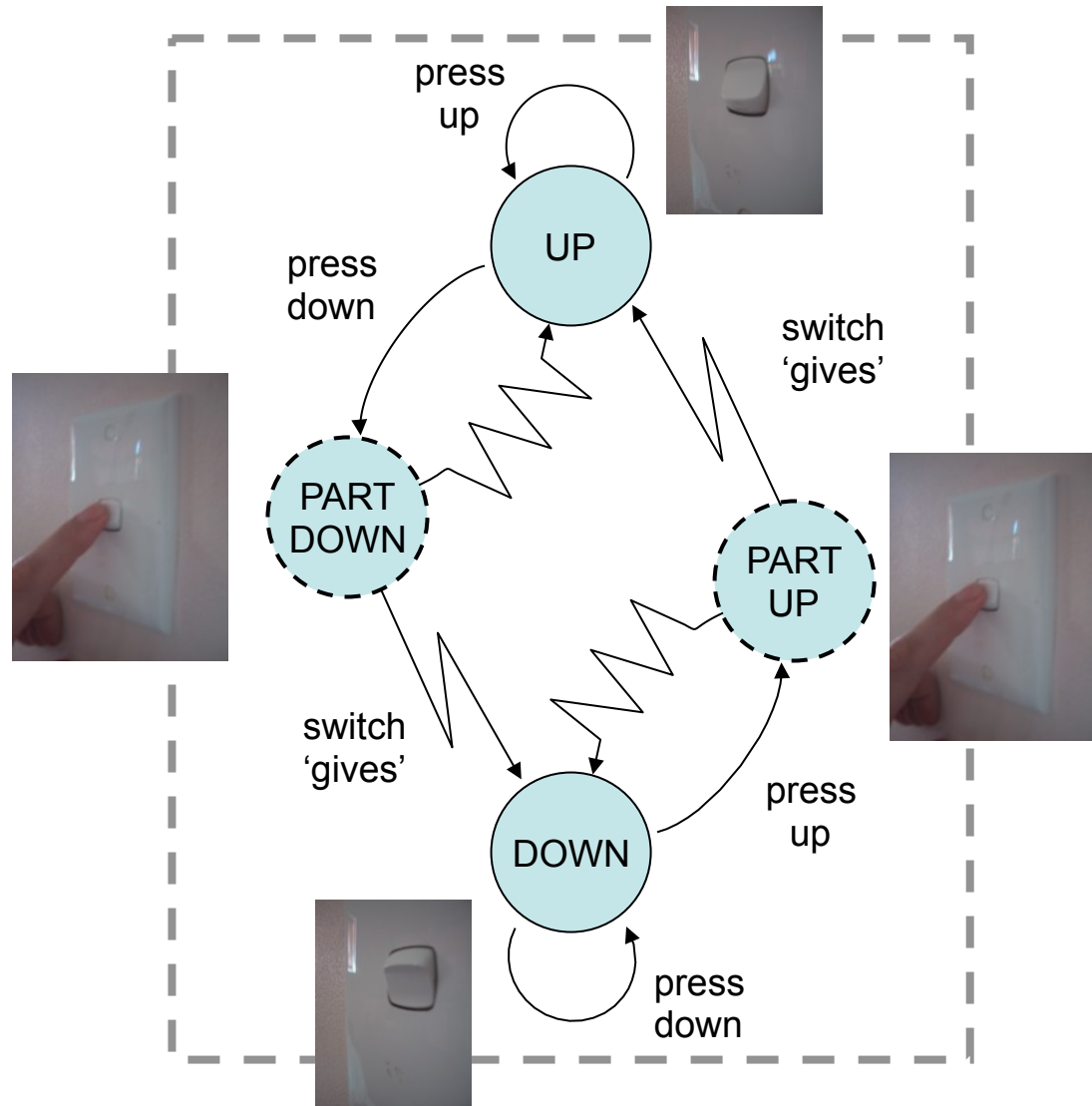


- (1) system state visible through control
- (2) system and user have similar effects

bounce-back button



initial pressure on exposed state switch

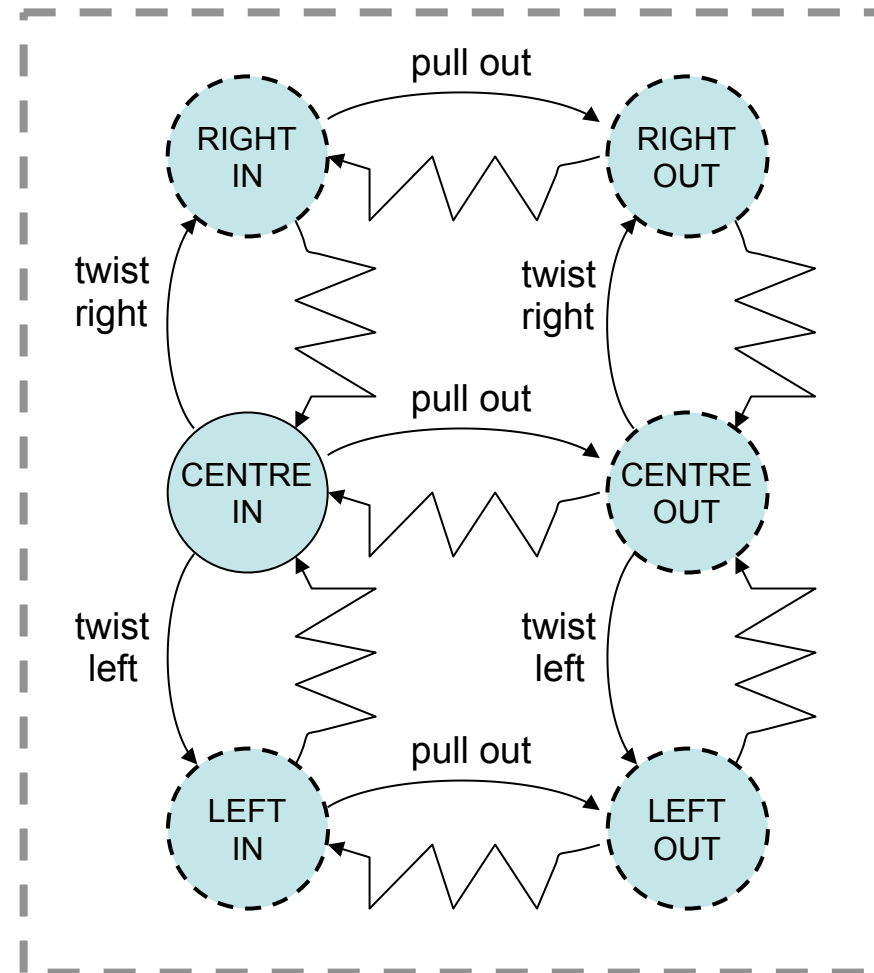


shorthand

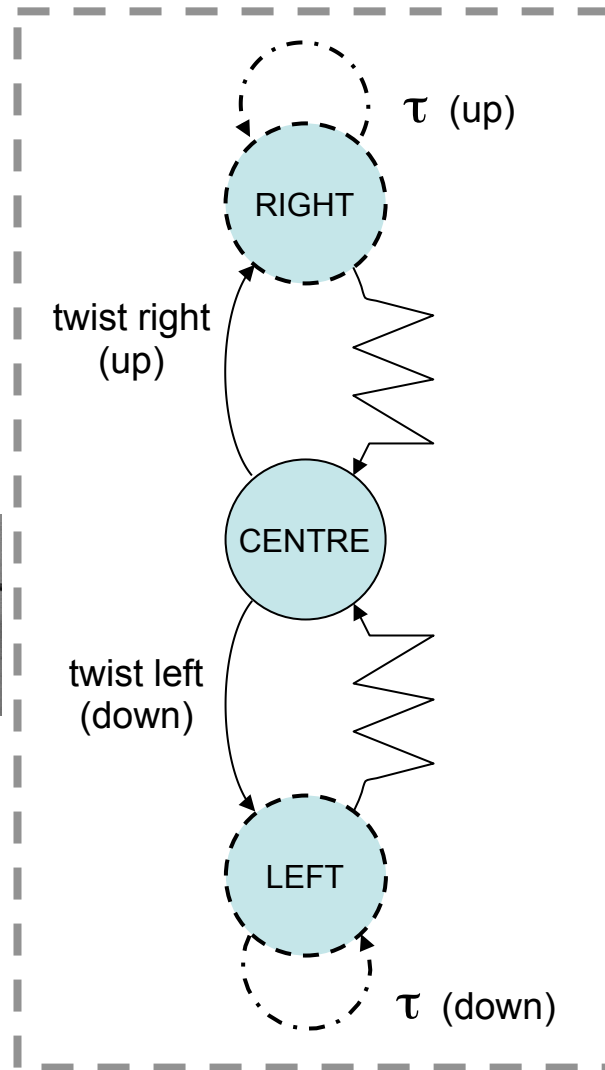
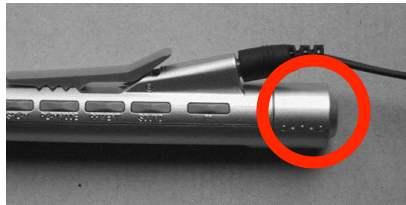
time-dependent devices (continued pressure)



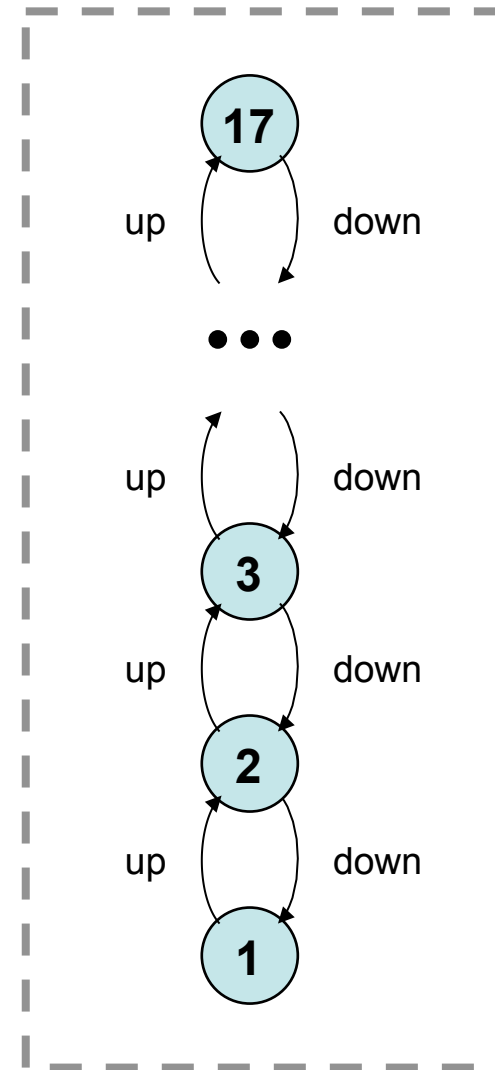
minidisk



minidisk knob



track selected



give it to designer

