(a) peripheral structure model

System Bus

Initialization circuit

trigger initialization

cmd register

activate specific peri. functions

config register

data buffer

AD/DA, En/Decoder, DMA, ...

Analog Modules

sensing

display

transmitting

→ *ctrl flow*
⇒ *data flow*
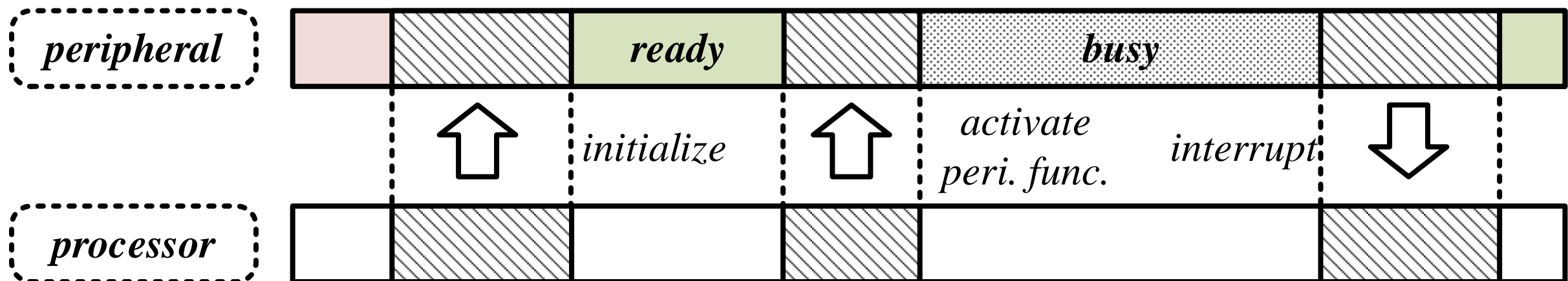
(b) Work flow of a typical peripheral controlled by processor

peripheral

ready

busy

initialize

activate peri. func.

interrupt

processor