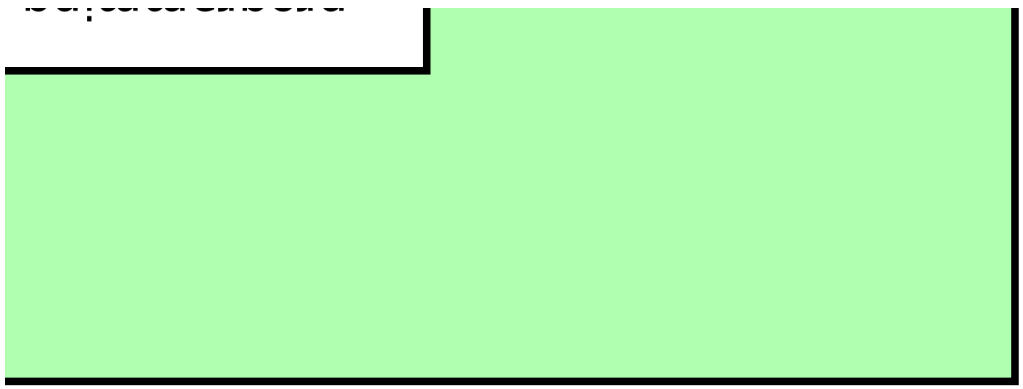
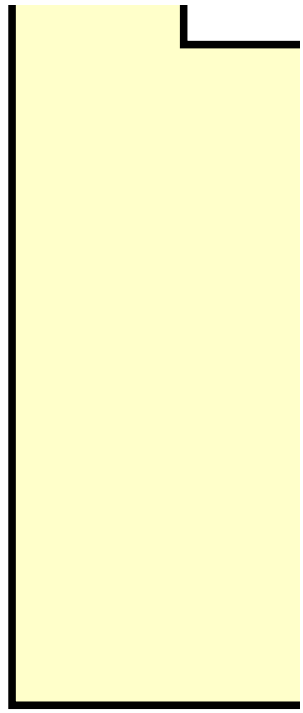
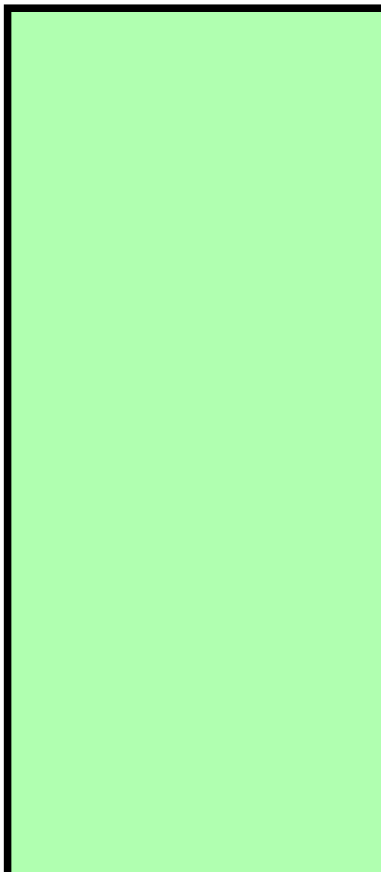
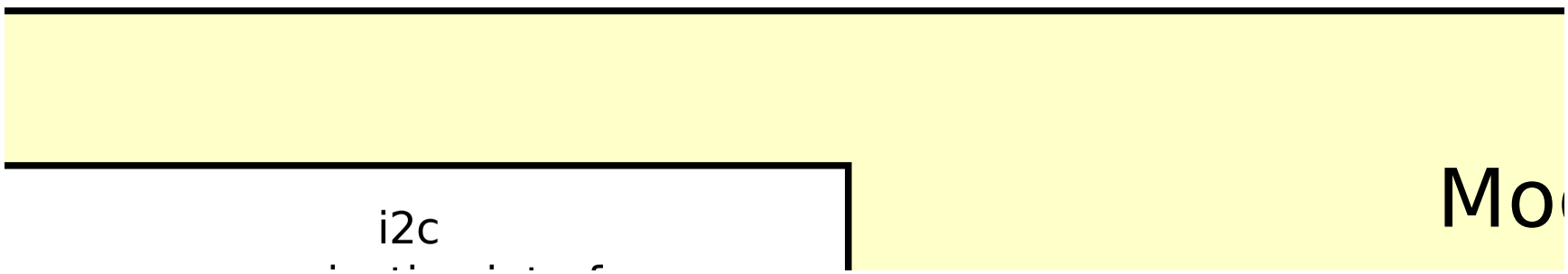


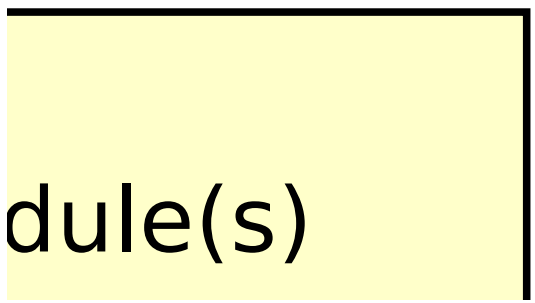
circuits uses simple pics.
any pic will do it if capable of the inputs and outputs etc

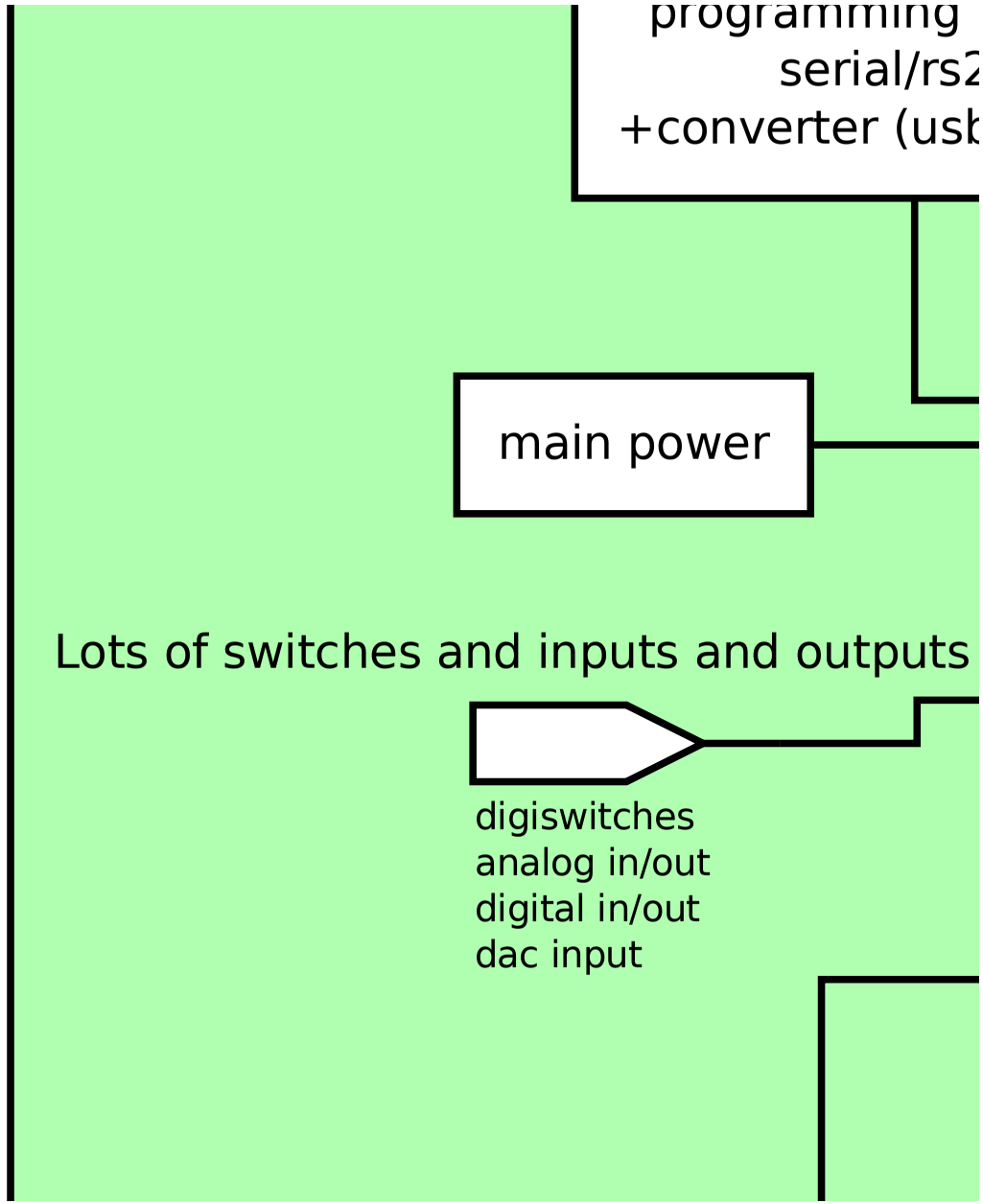
interface

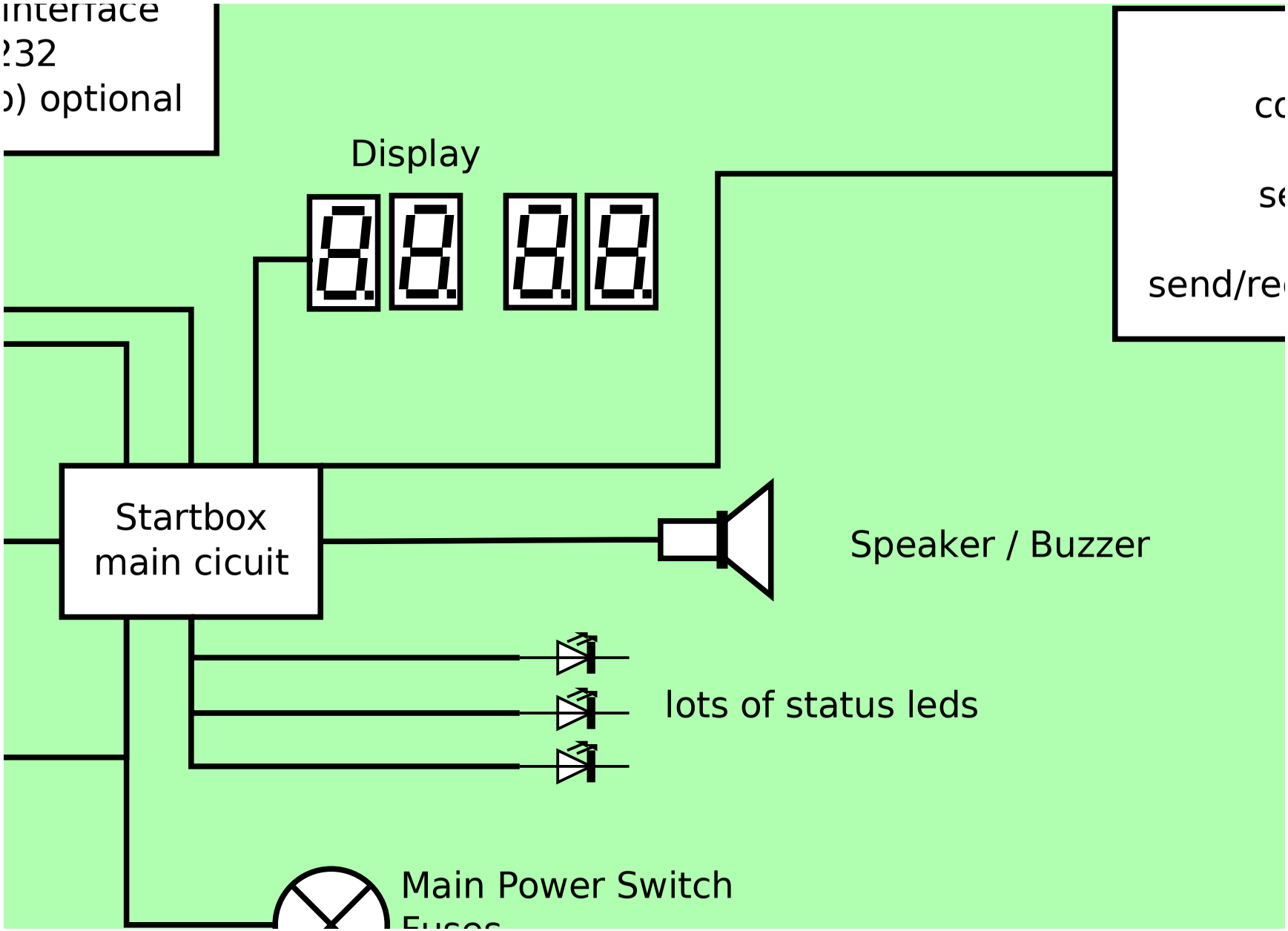


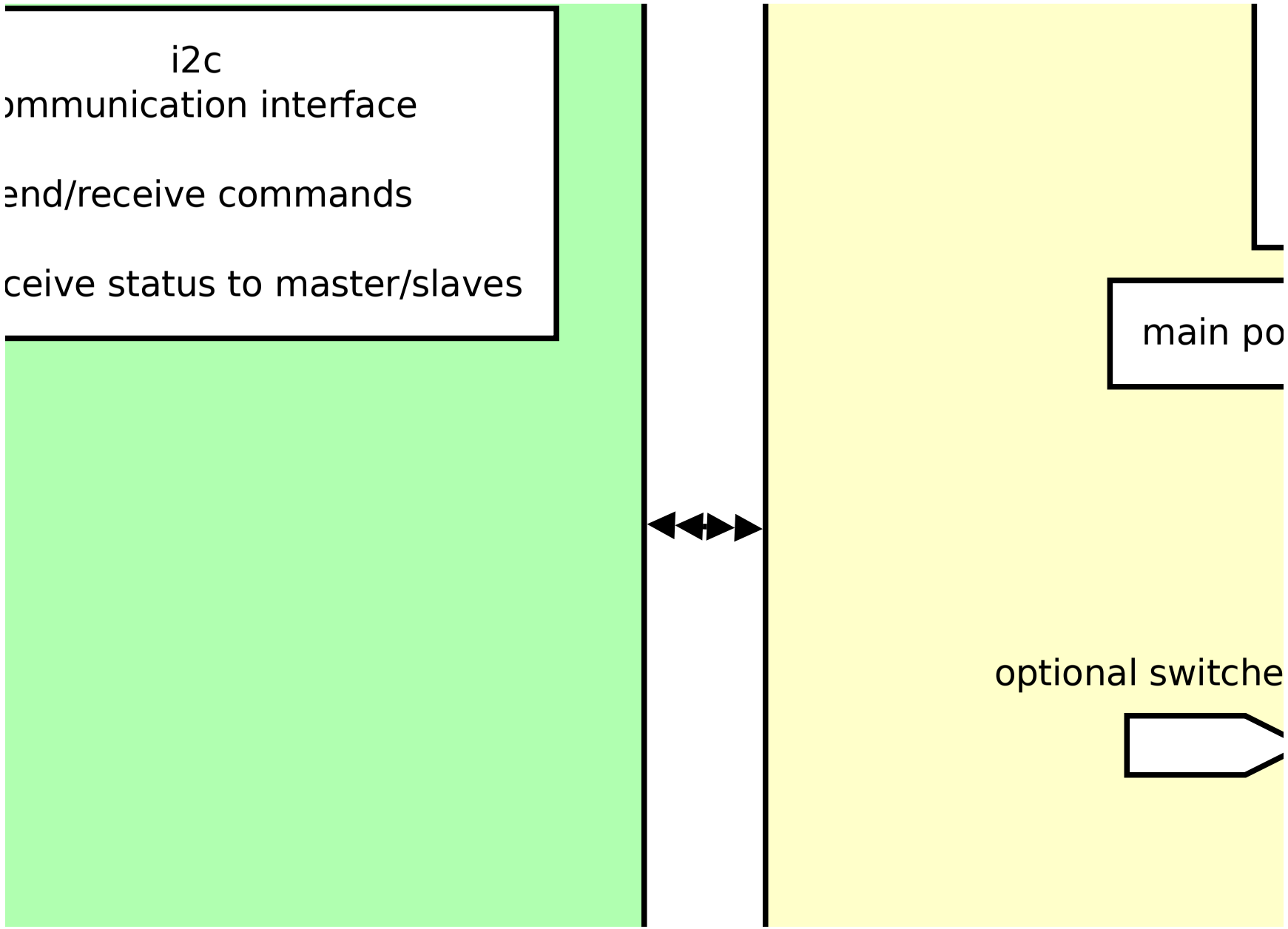


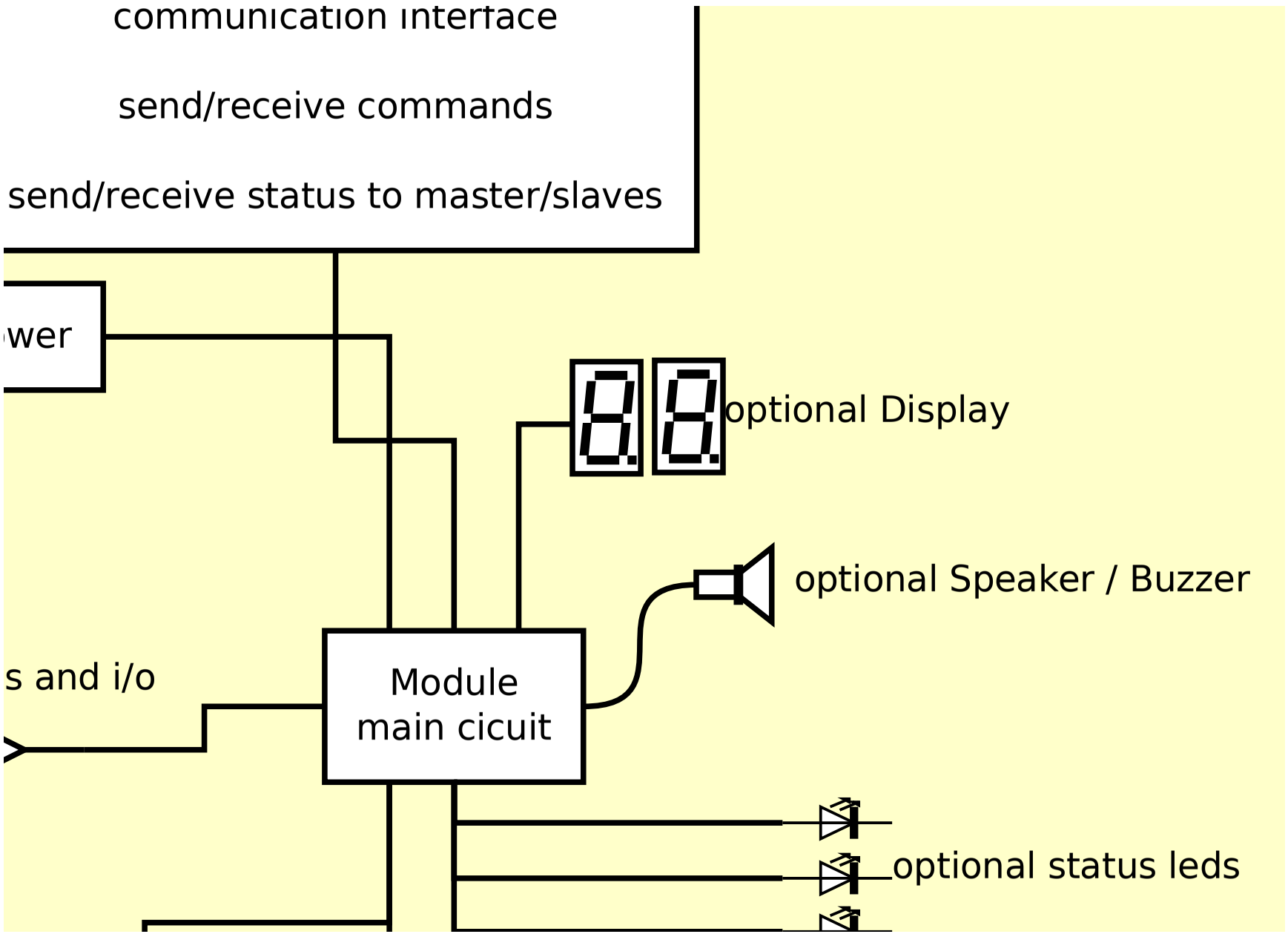

i2c
Mo

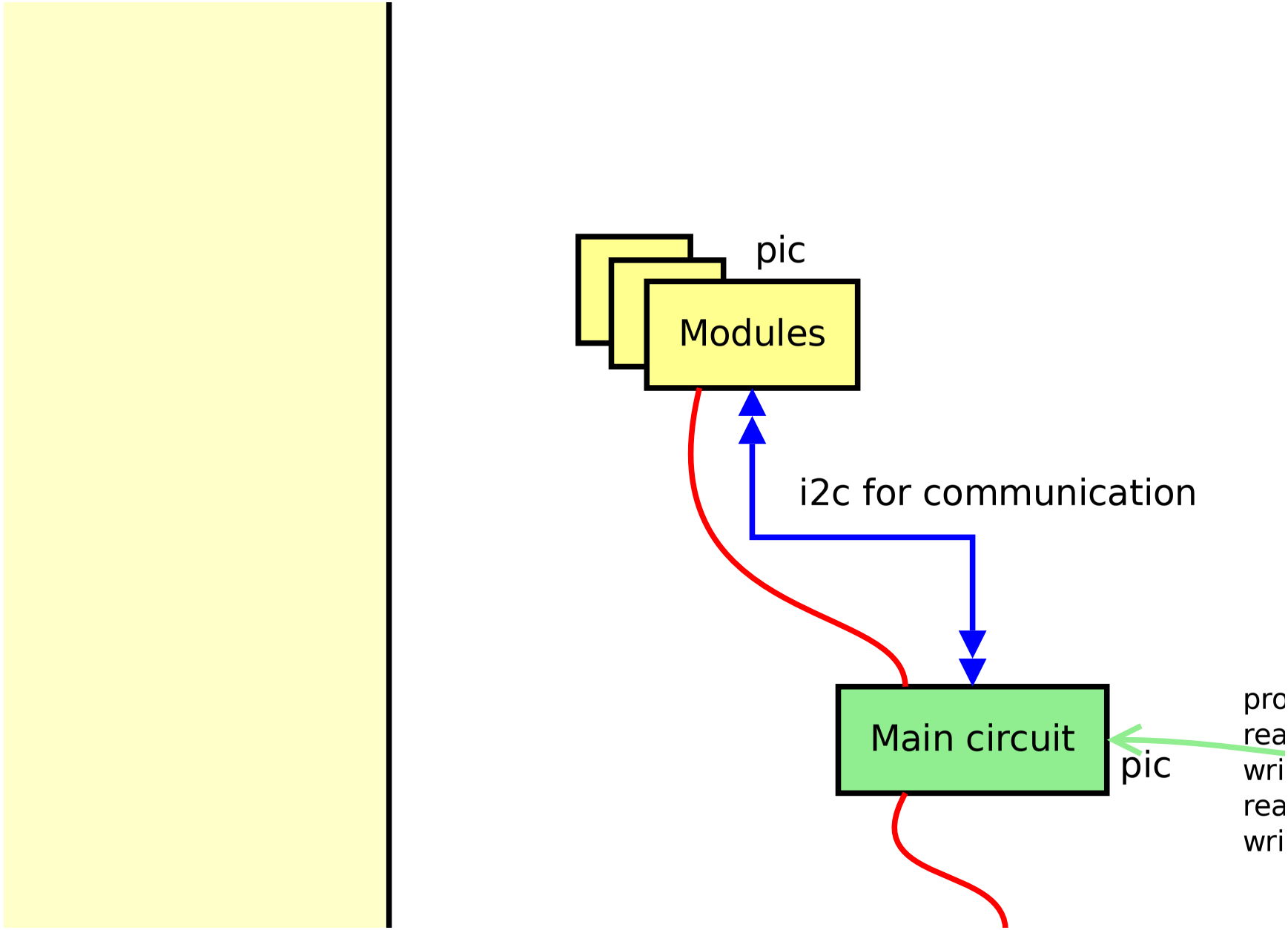

dule(s)

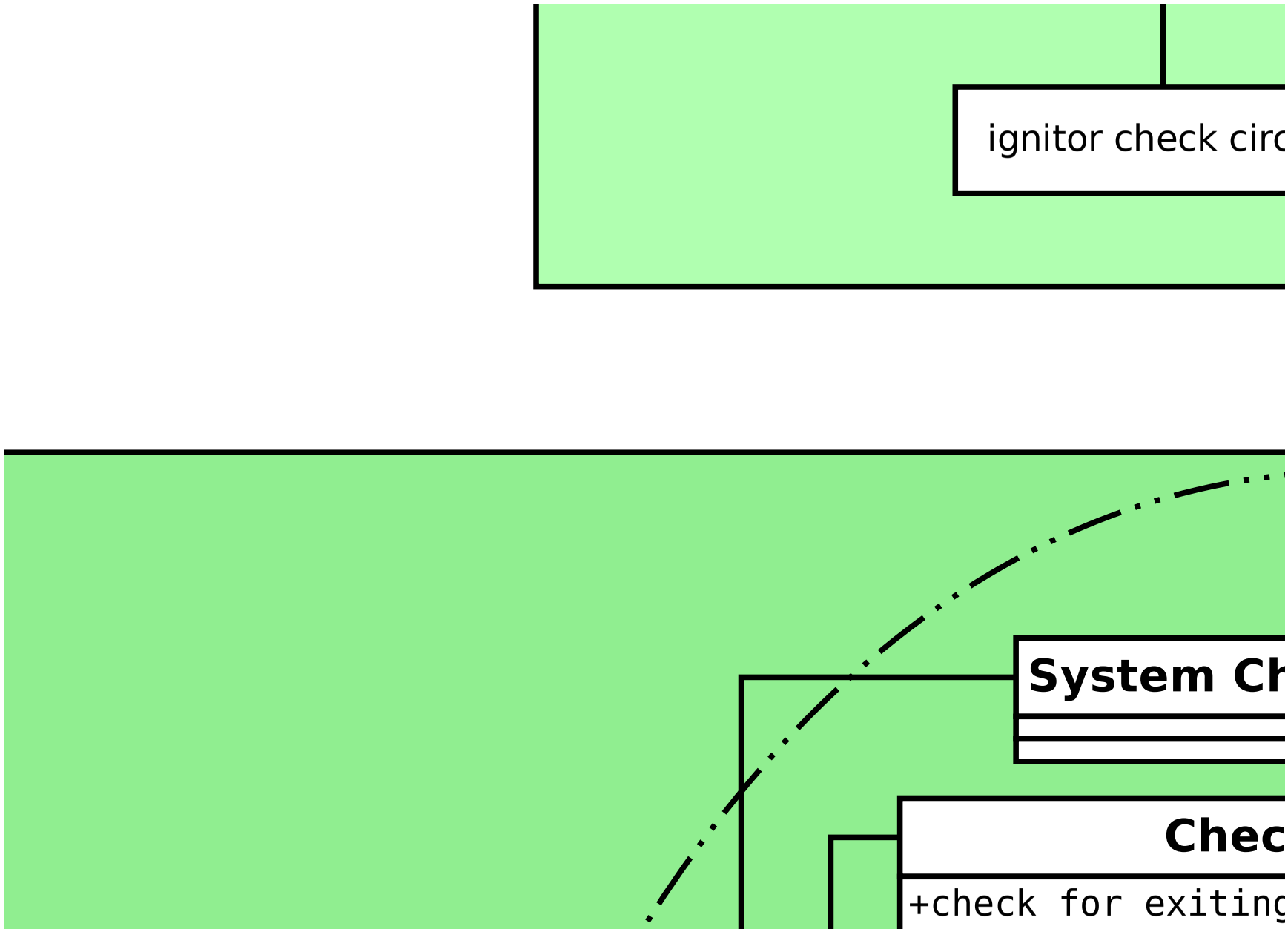

programming
serial/rs2
+converter (usb
main power
Lots of switches and inputs and outputs
digiswitches
analog in/out
digital in/out
dac input

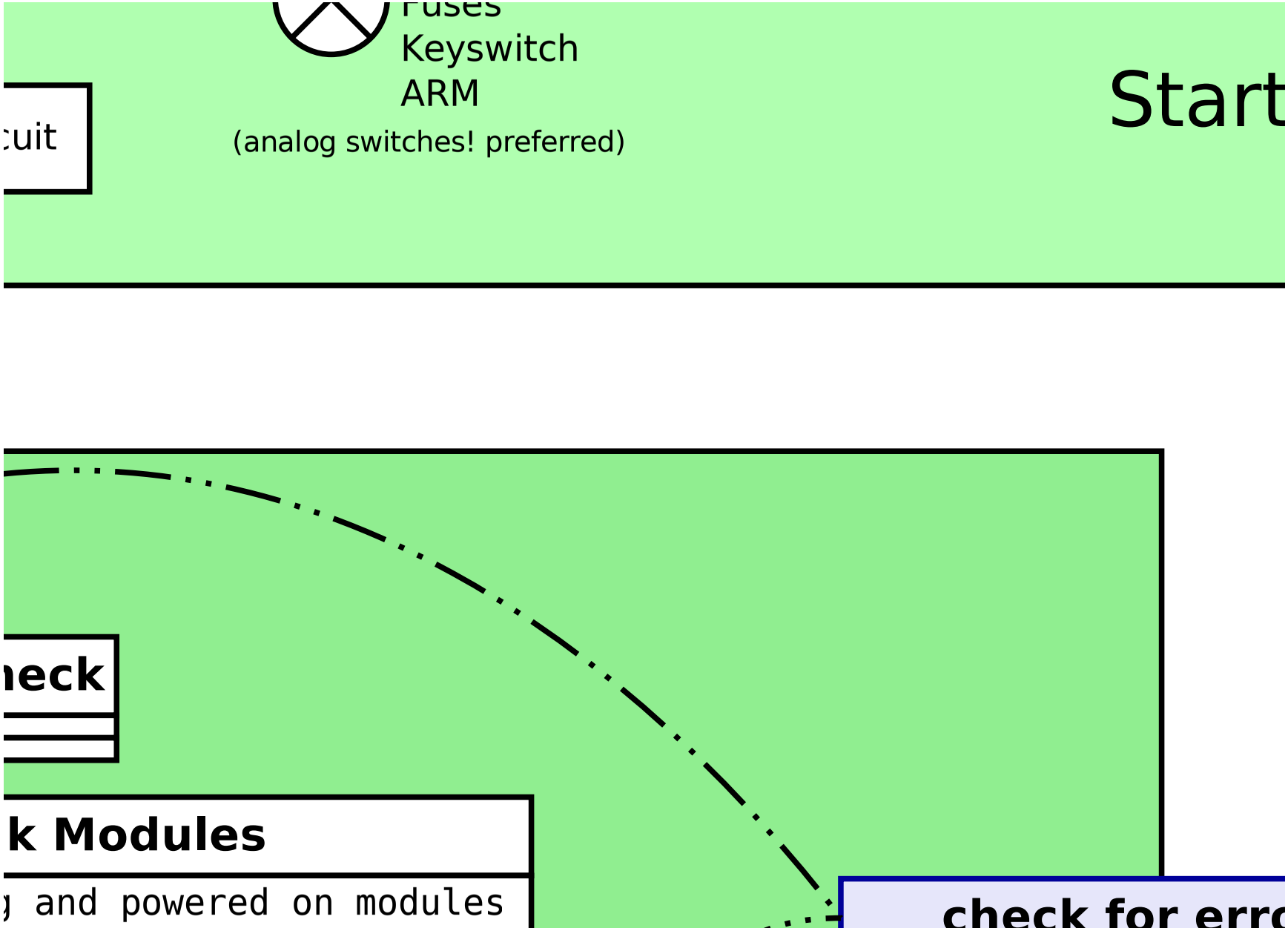

nterface
232
) optional
Display
send/re
Startbox
main cicuit
Speaker / Buzzer
lots of status leds
Main Power Switch

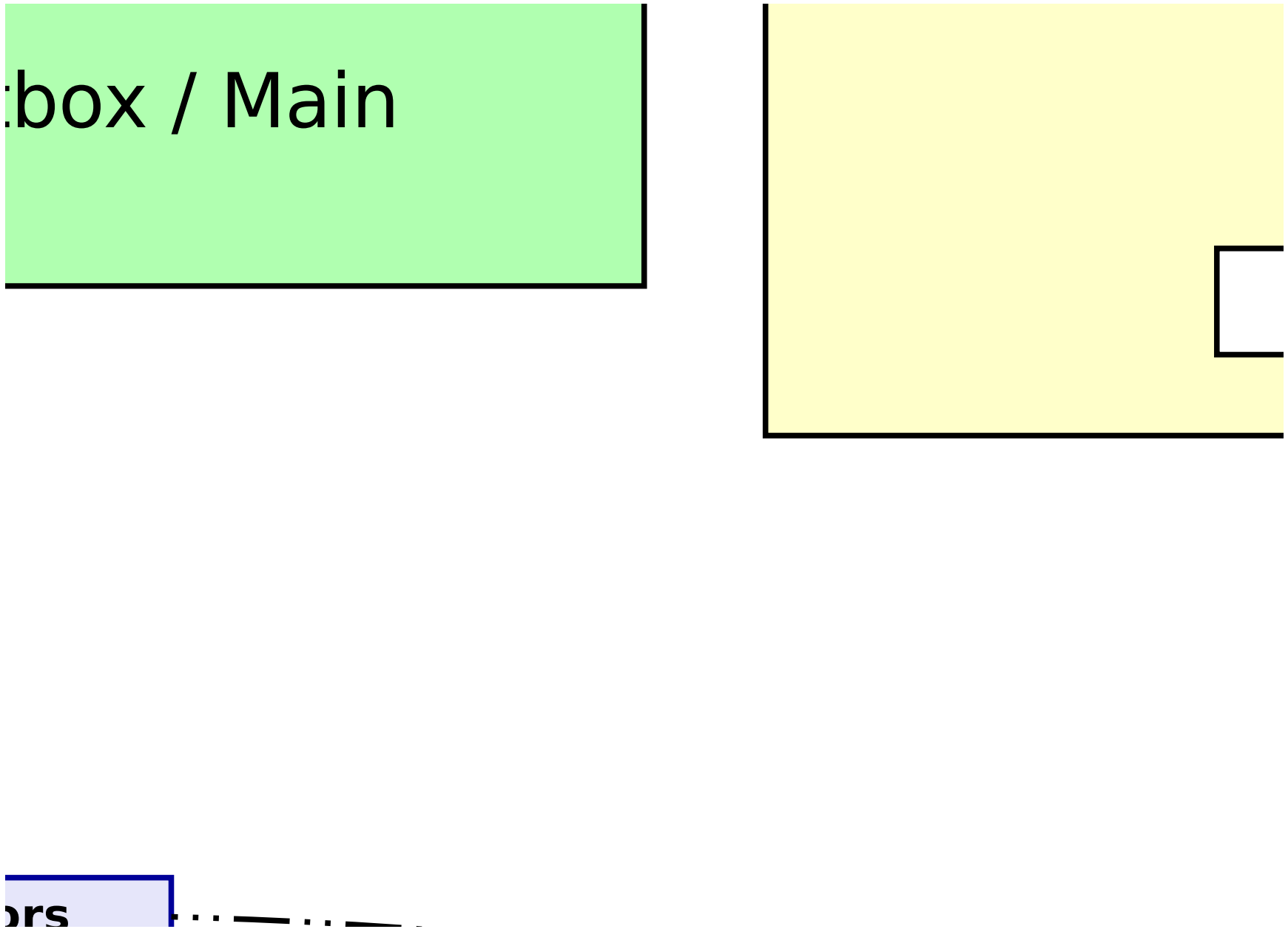

i2c
ommunication interface
end/receive commands
ceive status to master/slaves
main po
optional switche

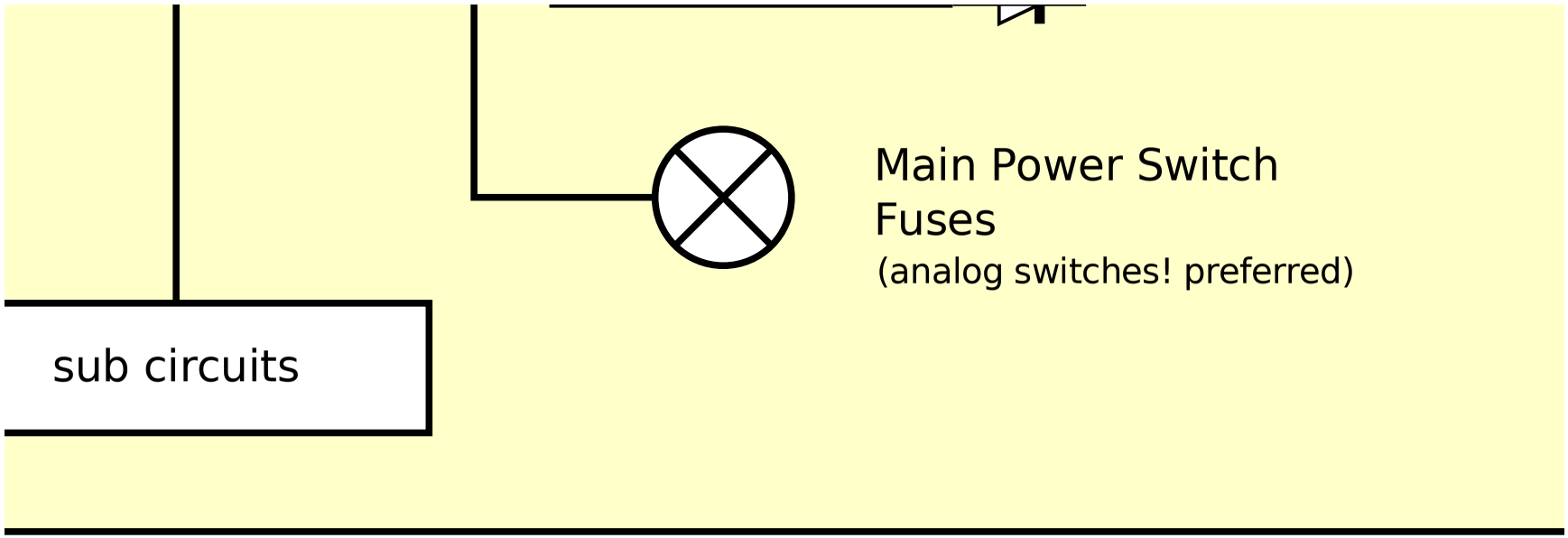

communication interface
send/receive commands
send/receive status to master/slaves
wer
optional Display
optional Speaker / Buzzer
s and i/o
Module
main cicuit
optional status leds


pic
Modules
i2c for communication
Main circuit
pic
pro
rea
wri
rea
wri


ignitor check circ
System Ch
Chec
+check for exiting


Fuses
Keyswitch
ARM
(analog switches! preferred)
Start
cuit
neck
k Modules
g and powered on modules
check for erro

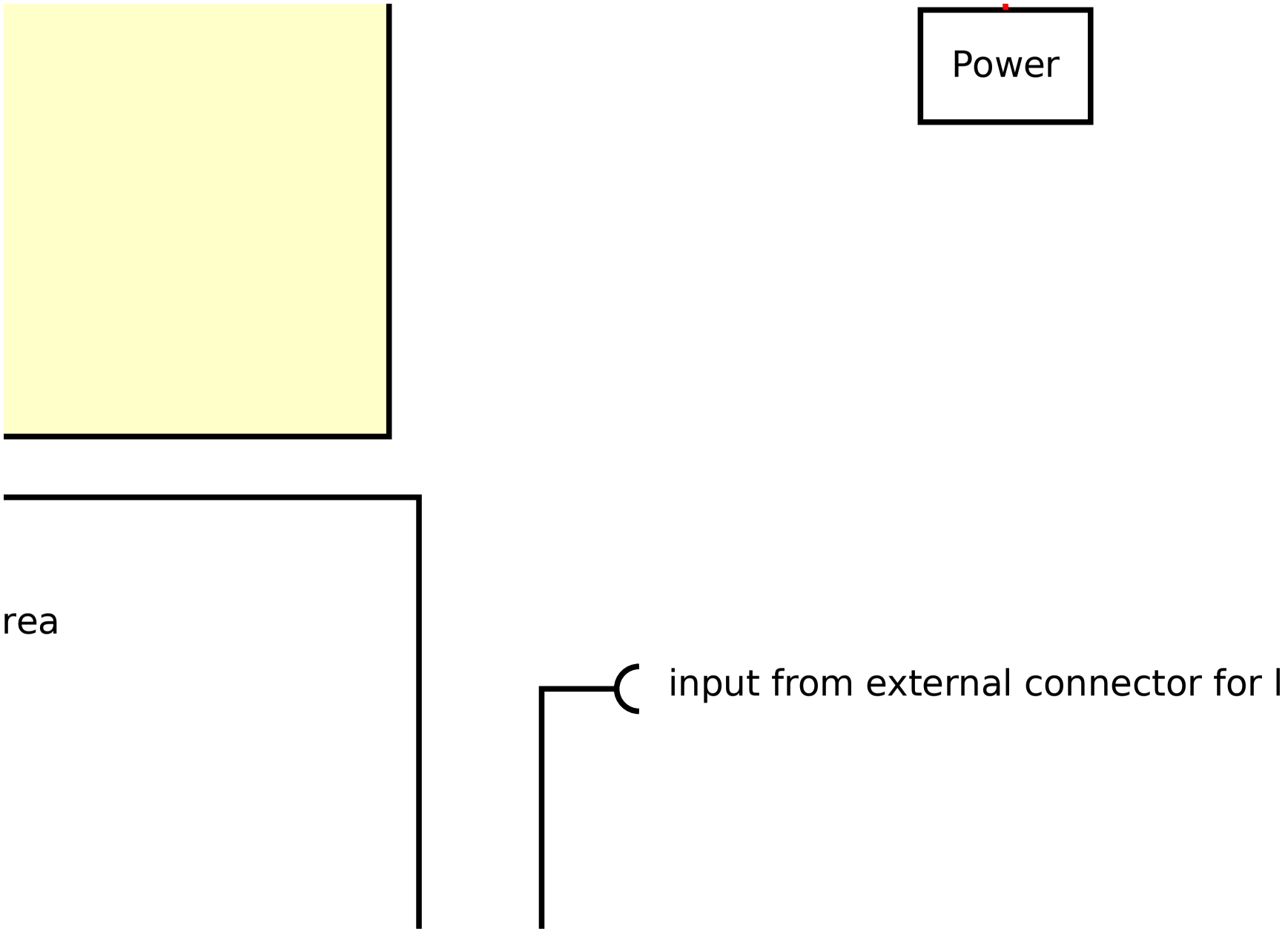

tbox / Main
ors

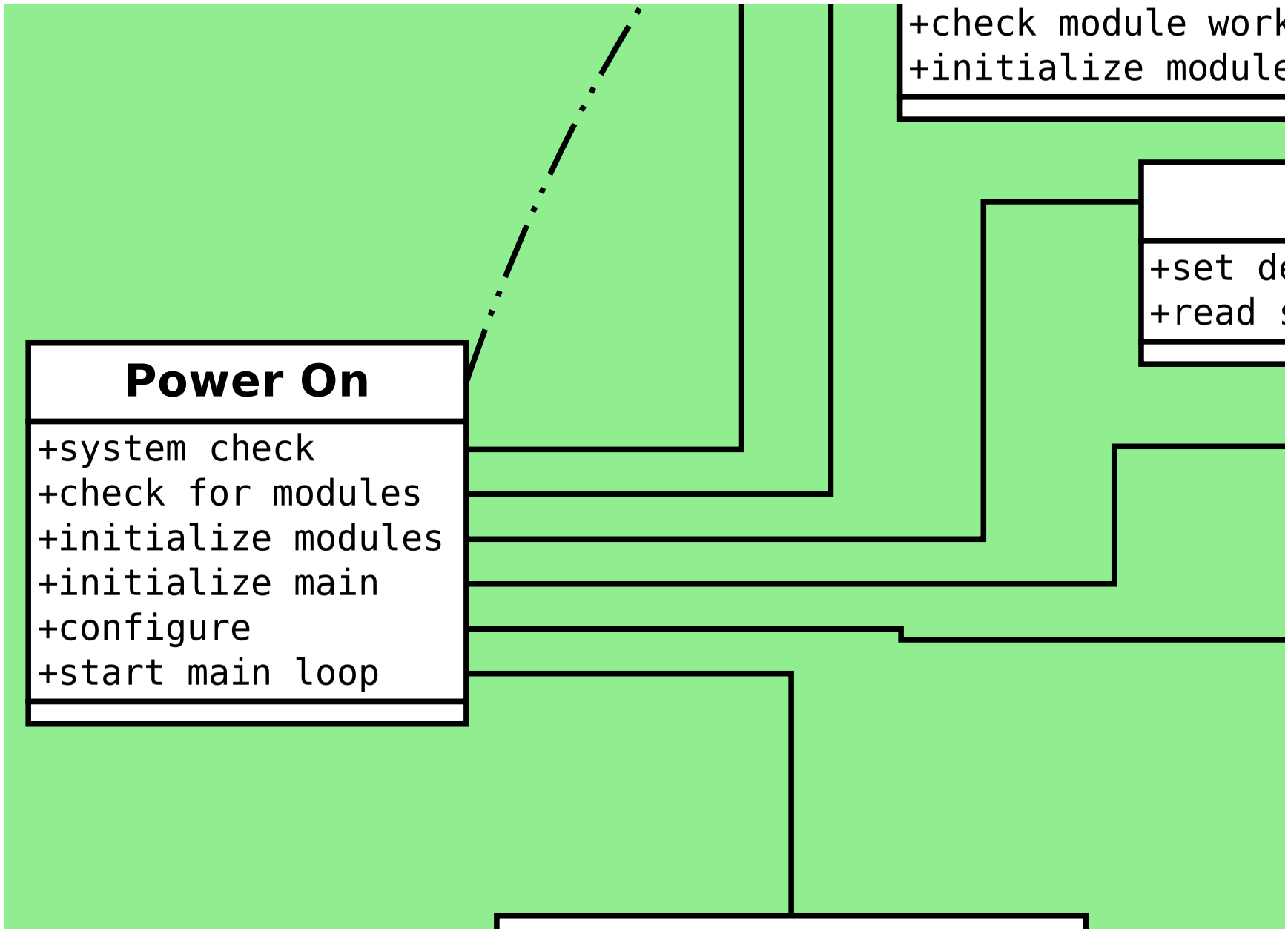


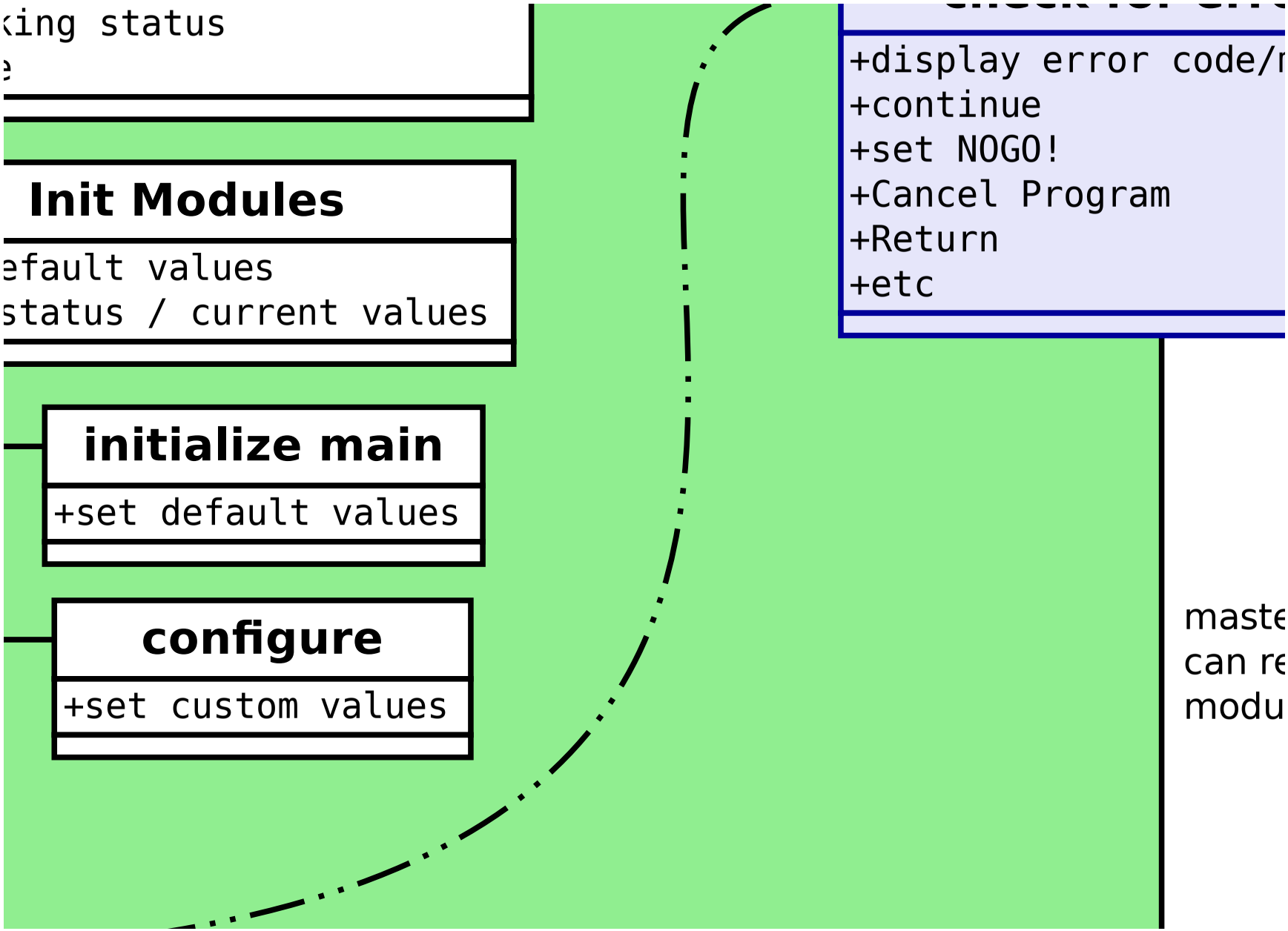
example module:
check launchpad safety a
with lightbarriers

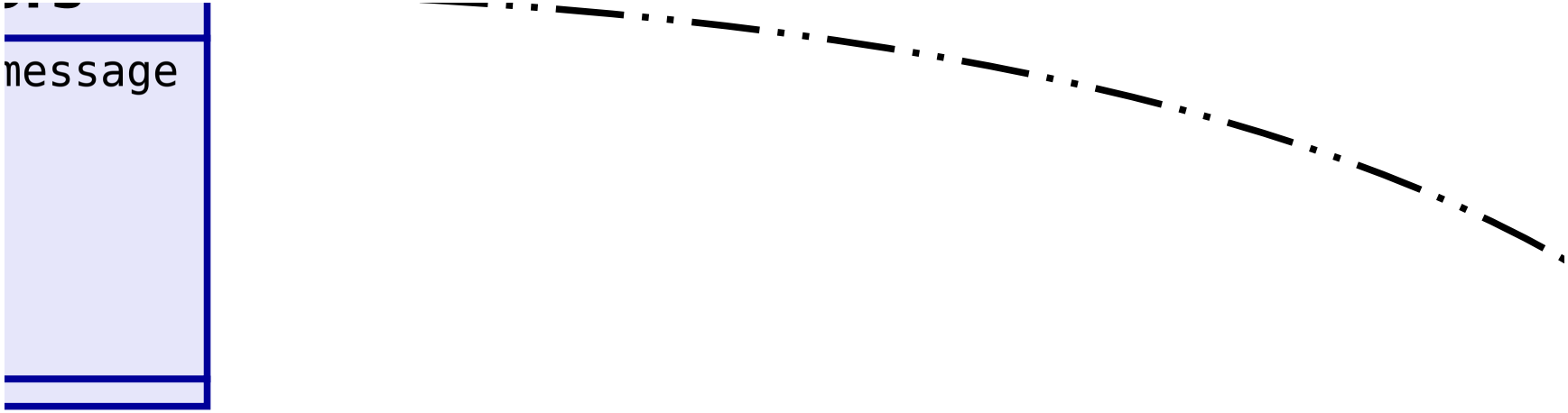
stuff to do

```
+power on
+status check
+init stuff
```

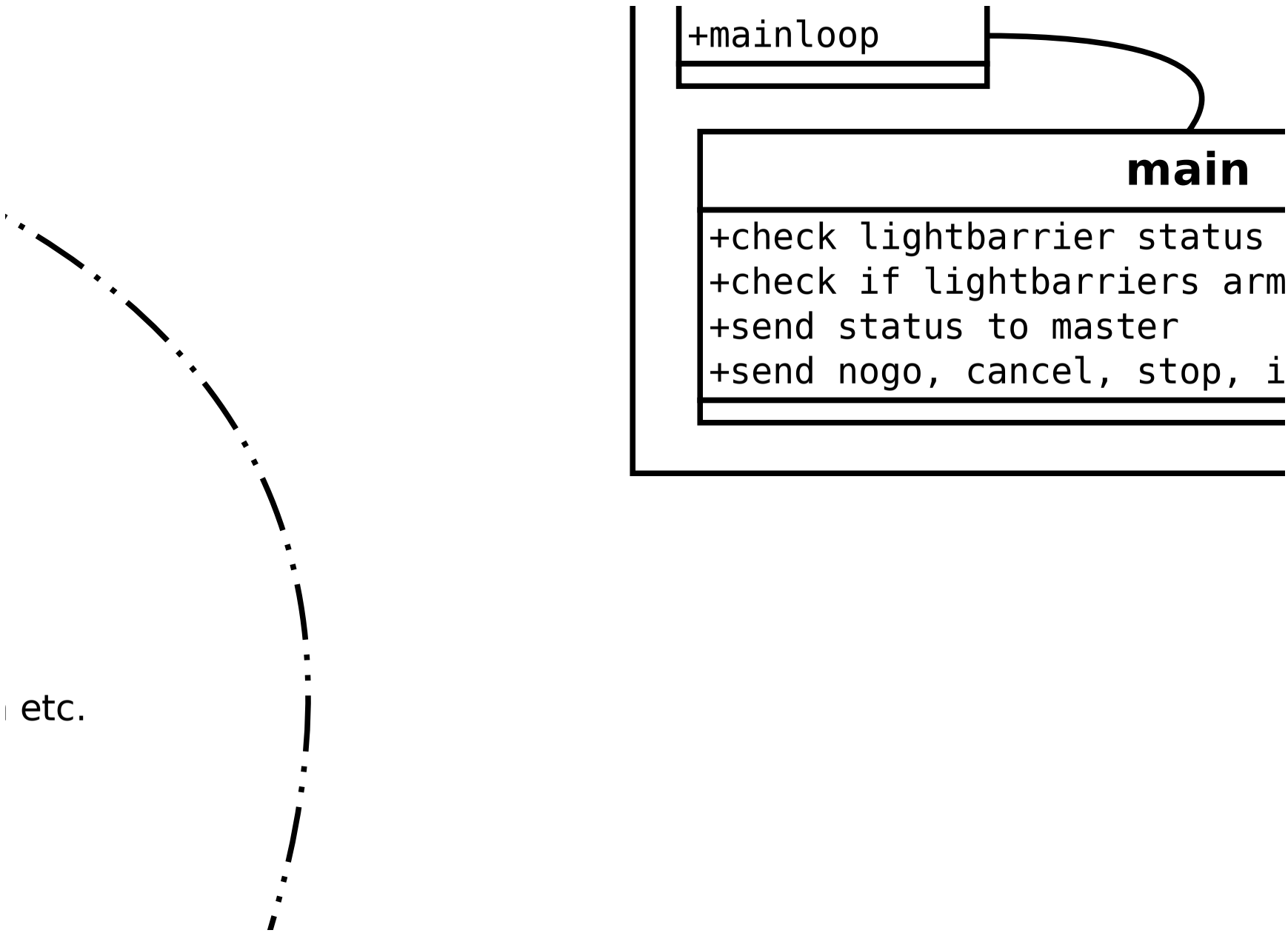

Power
rea
input from external connector for l

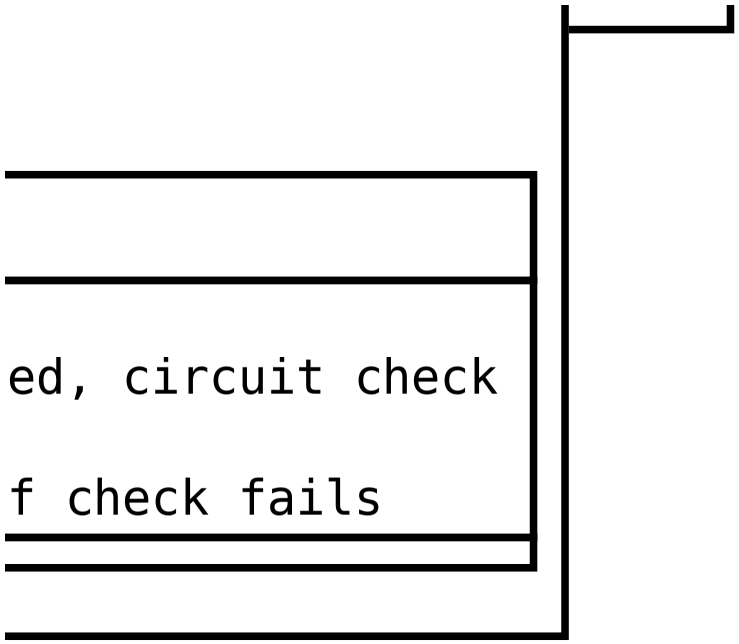

+check module work
+initialize module
+set de
+read s
Power On
+system check
+check for modules
+initialize modules
+initialize main
+configure
+start main loop

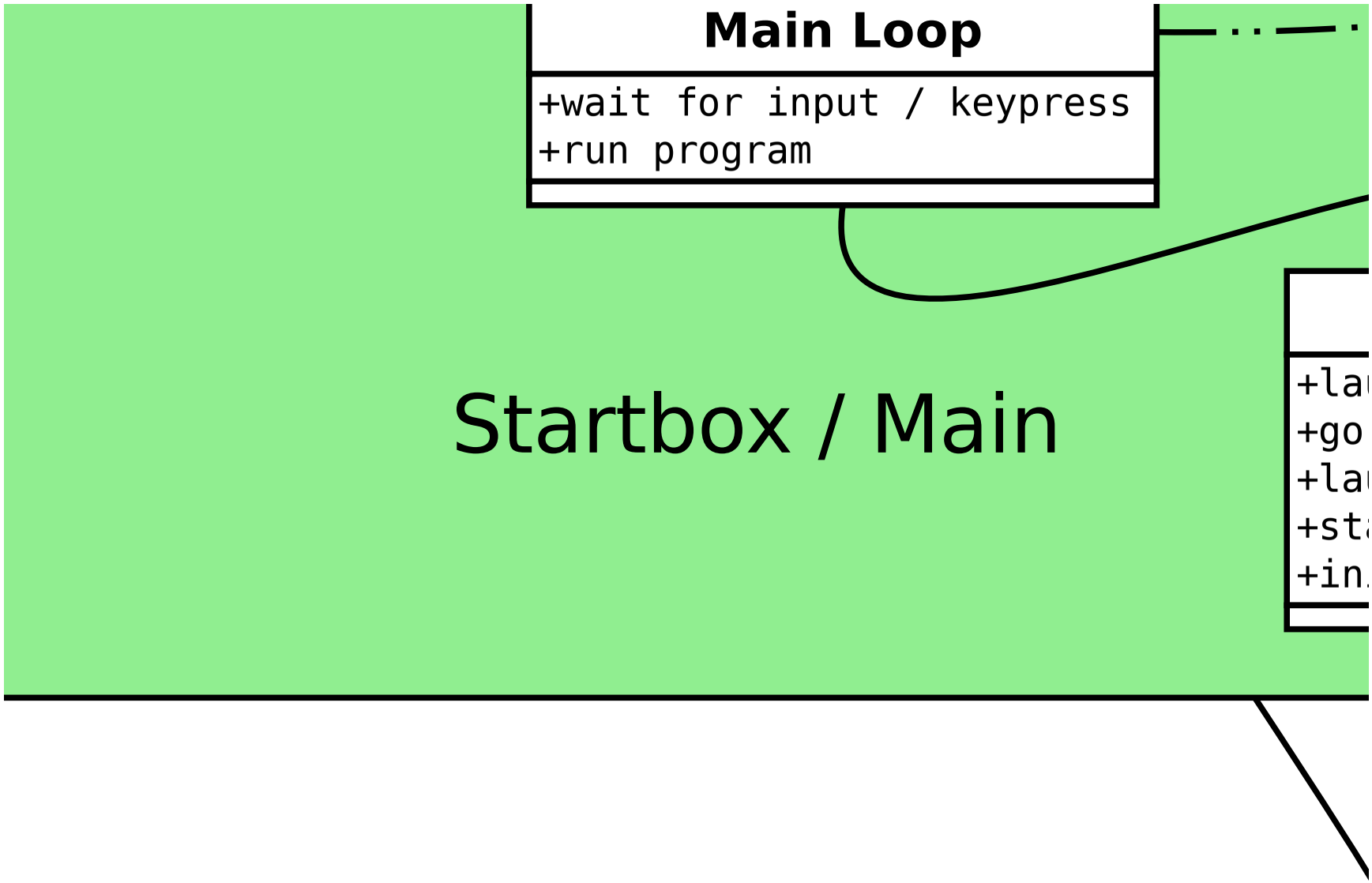

king status
e
Init Modules
efault values
status / current values
initialize main
+set default values
configure
+set custom values
+display error code/
+continue
+set NOGO!
+Cancel Program
+Return
+etc
maste
can re
modu

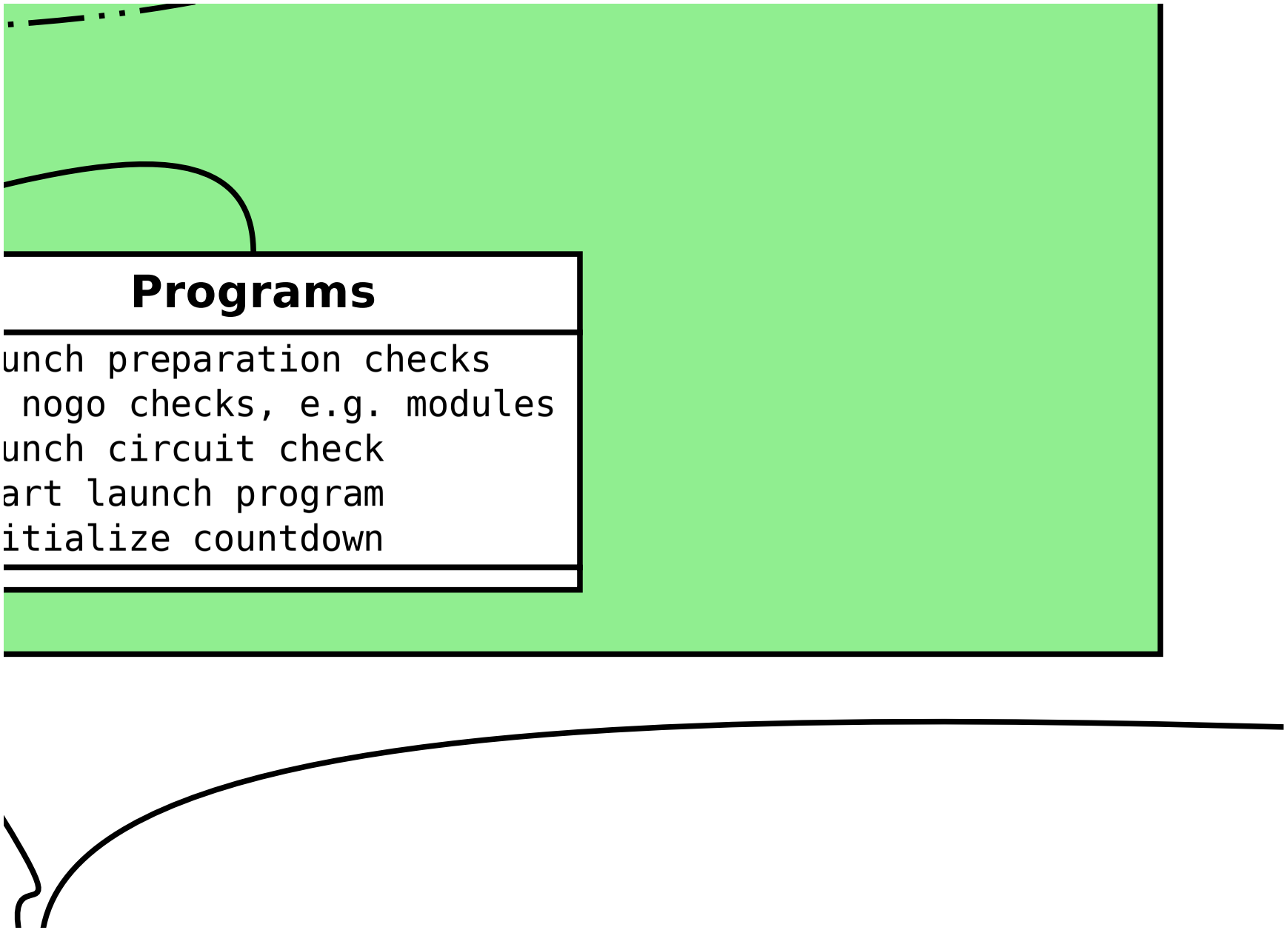


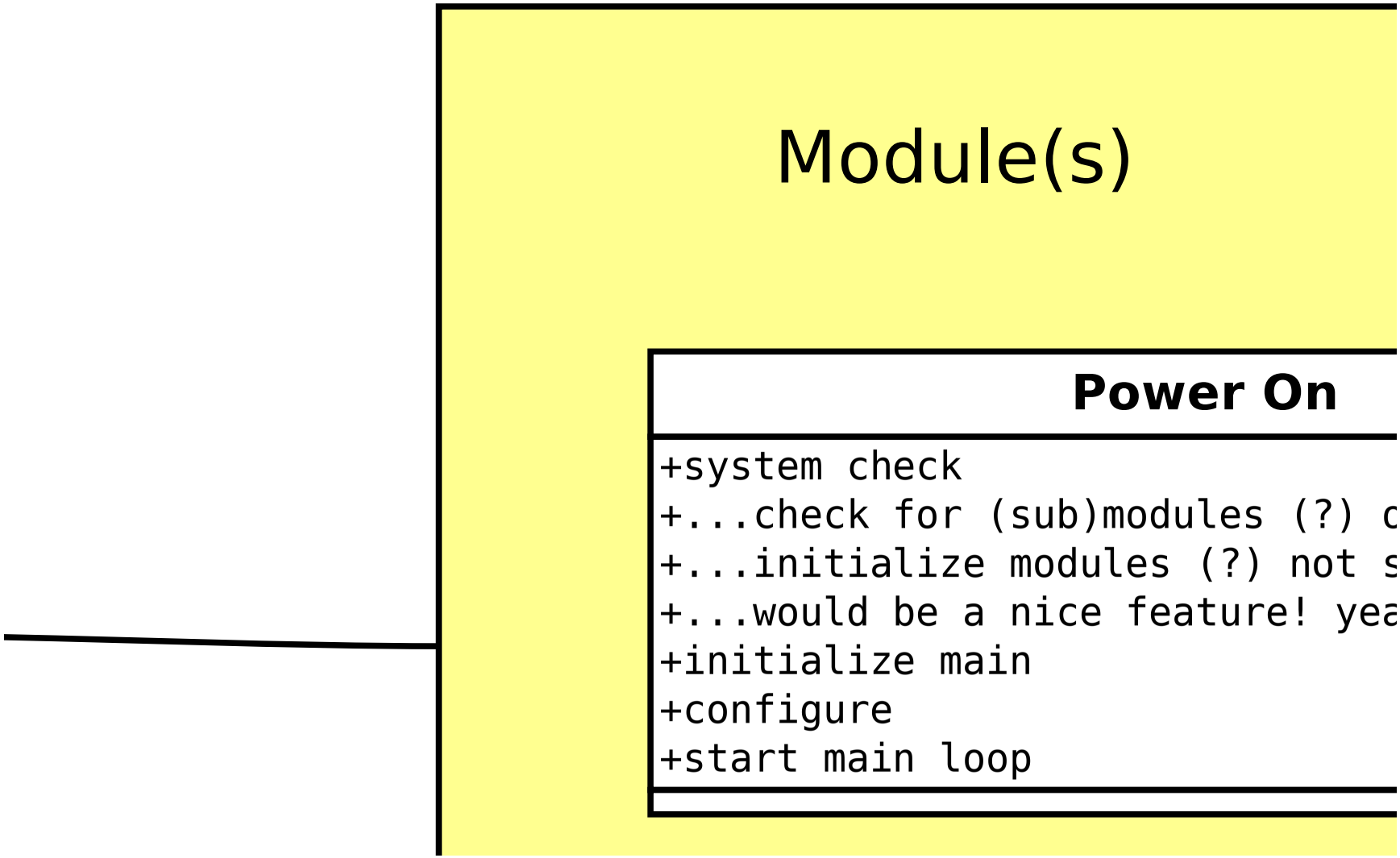
er checks module presence and status
ead and write configuration parameters
le could send go nogo, warnings, change status, cancel/hold countdown

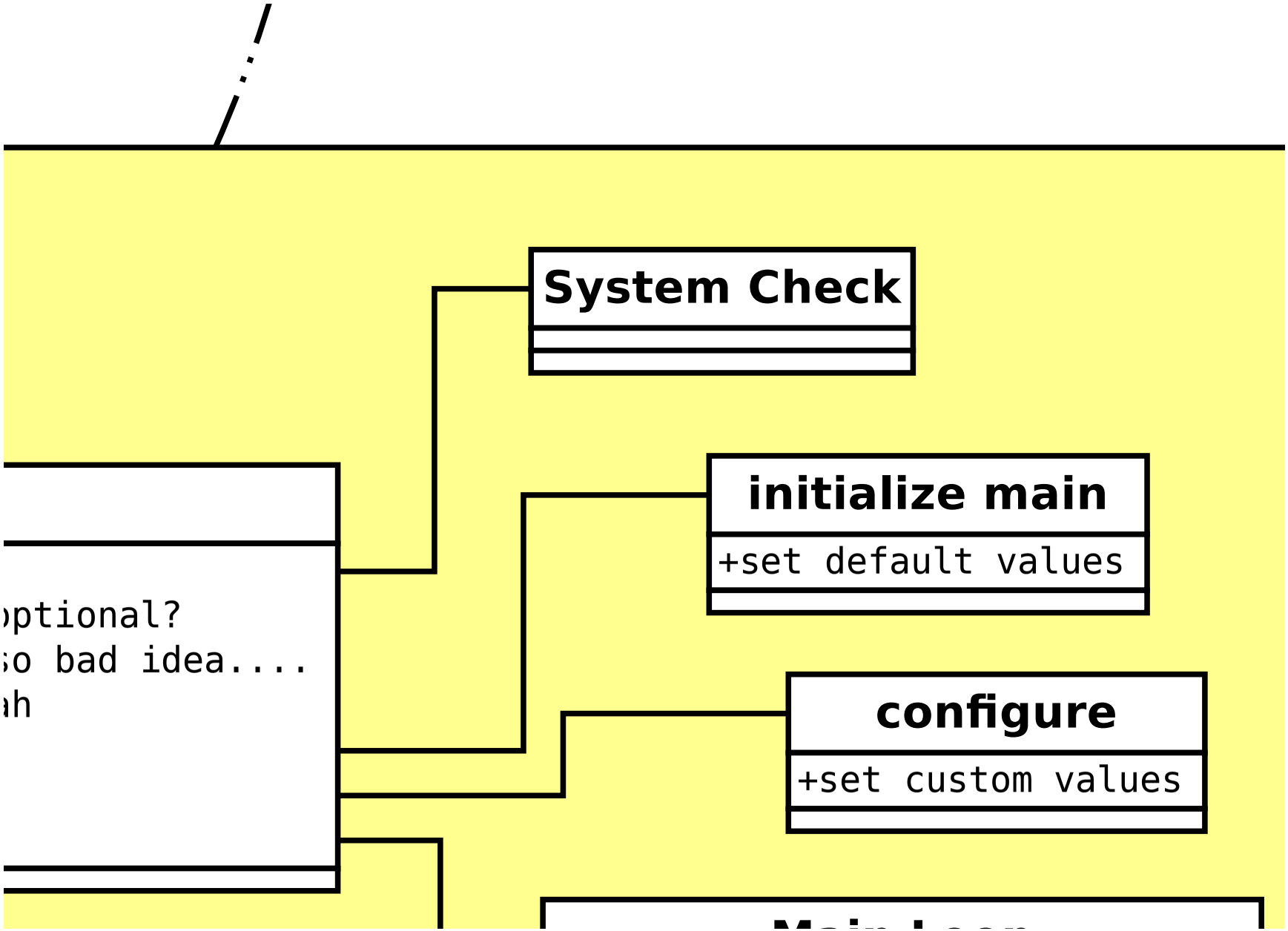

+mainloop
main
+check lightbarrier status
+check if lightbarriers arm
+send status to master
+send nogo, cancel, stop, i
etc.

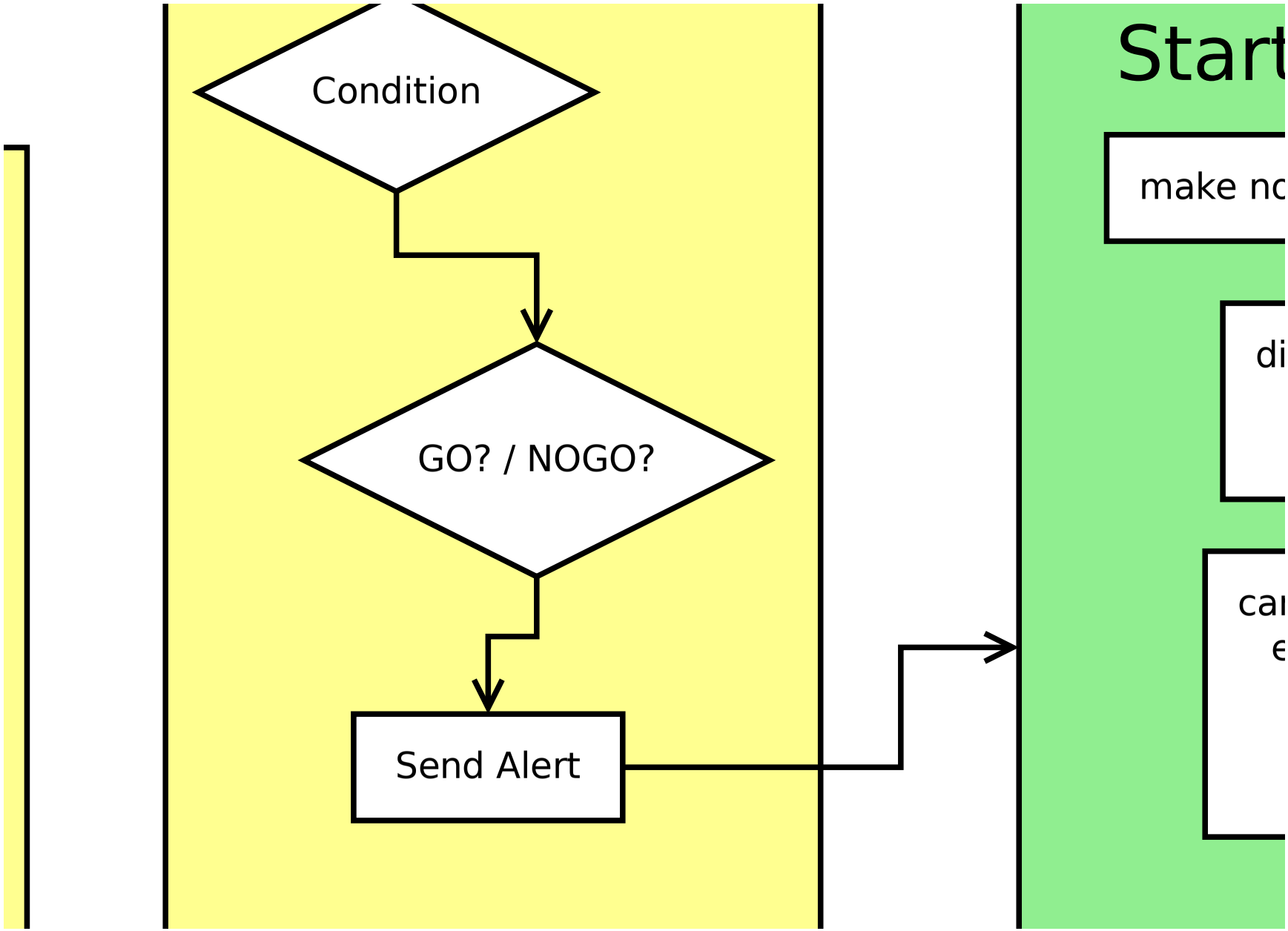

ed, circuit check
f check fails


Main Loop
+wait for input / keypress
+run program
Startbox / Main


Programs
unch preparation checks
nogo checks, e.g. modules
unch circuit check
art launch program
itialize countdown


Module(s)
Power On
+system check
+...check for (sub)modules (?) c
+...initialize modules (?) not s
+...would be a nice feature! yea
+initialize main
+configure
+start main loop


System Check
initialize main
+set default values
configure
+set custom values
optional?
so bad idea....
ah


Condition
GO? / NOGO?
Send Alert
Start
make nc
di
ca
e