

Start

Setup function

create a struct type called "*slaveInfo*":
this contains slaveName,
slaveAddress, numVials

for **numSlaves** (from config_master),
create a *slaveInfo*, populate
slaveName, **slaveAddress**, **numVials**
(with info from config_master)

open serial port and set data rate to
baudrate specified in config_master

```
typedef struct {  
    char slaveName;  
    int slaveAddress;  
    int numVials;  
  
    String mode = "normal";  
    int prevRequestTime;  
} slaveInfo;  
  
slaveInfo arr_slaves[numSlaves];  
  
for (int i=0; i<numSlaves; i++) {  
    arr_slaves[i].slaveName = slaveNames[i];  
    arr_slaves[i].numVials = vialsPerSlave[i];  
    arr_slaves[i].slaveAddress = slaveAddresses[i];  
}
```

Loop function

there are bytes
available for reading
from the serial port
(stored in the serial receive
buffer which can hold 64 bytes)

True

read string from serial

parseSerial(inString)

False

for each
slave x:

False

get current time;
calculate time since
last request to slave[x]

x = x+1

time since last
>= time between
requests

False

True

store current time in
slave[x].prevReqTime

requestData(x)

using readString possibly
slows things down, might
need to manually write
something instead if this
isn't going fast enough