

```
1  from MotorController import *
2  from DRV8833 import *
3  from Encoder import *
4
5  desired_cps = 100    # controller setpoint
6  P = 1                # controller proportional gain
7  Ts = 20              # controller operating period in [ms]
8
9  controller = MotorController(DRV8833(19, 16), Encoder(34, 39, 0))
10
11 def callback(timer):
12     global controller, desired_cps, P
13     # proportional control and print actual_cps (for plotting)
14     print(controller.pi_control(desired_cps, P))
15
16 timer = Timer(0)
17 timer.init(period=Ts, mode=Timer.UP, callback=callback(timer))
```