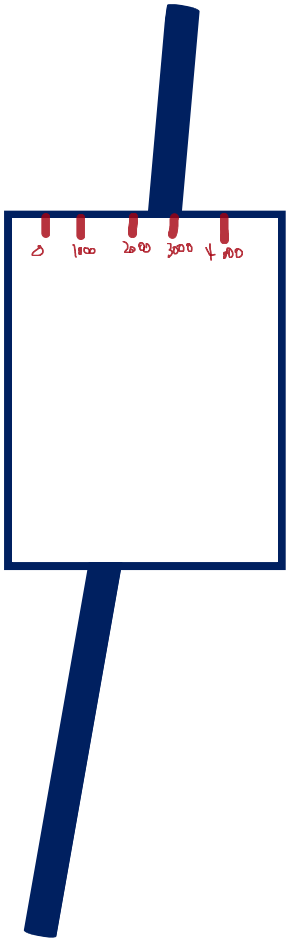
defualt



kp/10

kp = max_speed/goal
100/2000=0.05

postion = (2000+3000)/5=1000

error = 2000-1000=1000

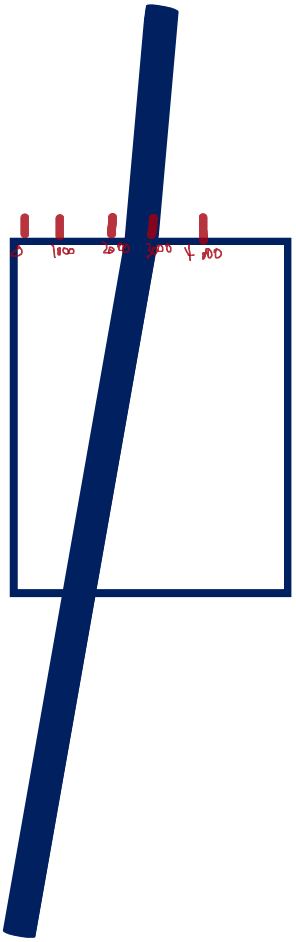
adjustment = 0.05*1000=50

right motor = 100+50=100

left motor = 100-50=50

```
position = qtr.readLineBlack(sensorValues);

error = GOAL - position;

adjustment = KP*error + KD*(error - lastError);

lastError = error;

motor_drive( (MAX_SPEED - adjustment)  ,  (MAX_SPEED + adjustment) );
```

too high



kp = 0.1

postion = (2000+3000)/5=1000

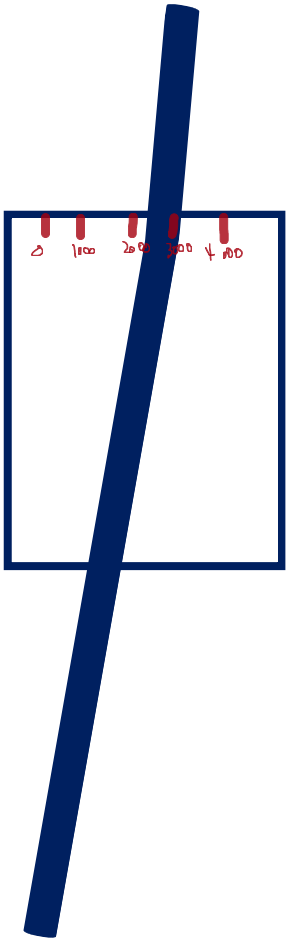
error = 2000-1000=1000

adjustment = 0.1*1000=100

right motor = 100+100=100

left motor = 100-100=0

too low



kp = 0.01

postion = (2000+3000)/5=1000

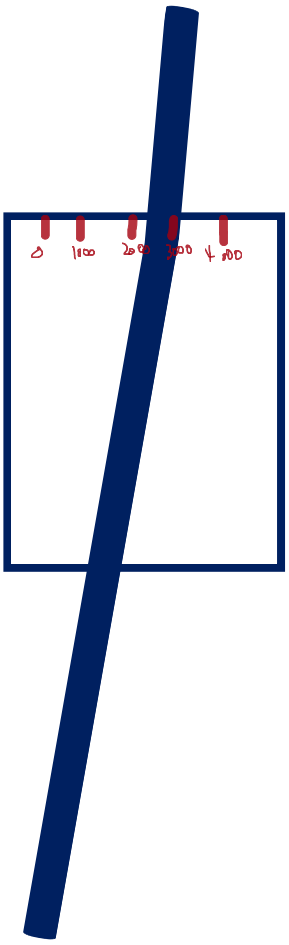
error = 2000-1000=1000

adjustment = 0.01*1000=10

right motor = 100+10=100

left motor = 100-10=90

too low



kp = 0.02

postion = (2000+3000)/5=1000

error = 2000-1000=1000

adjustment = 0.02*1000=20

right motor = 100+20=100

left motor = 100-20=80