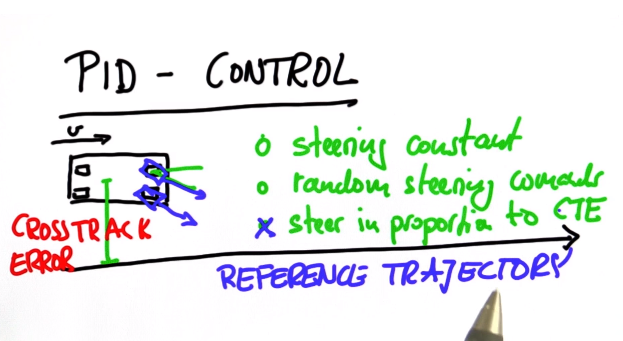
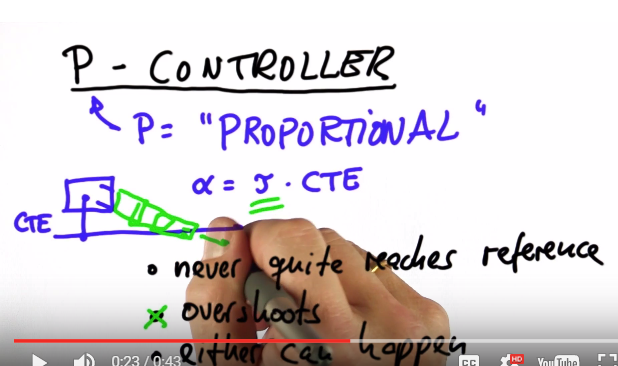
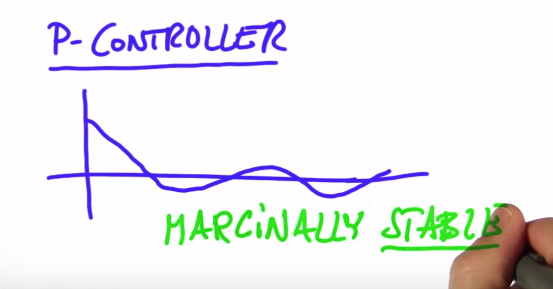
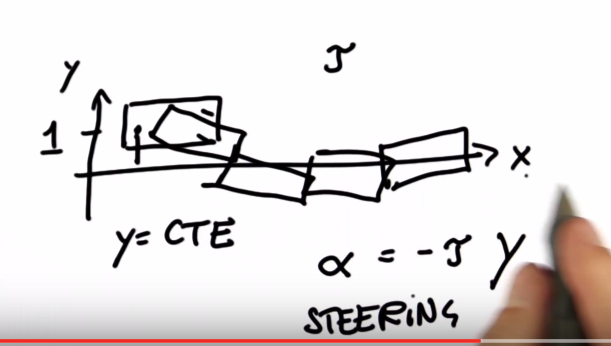
16.3 proportional control



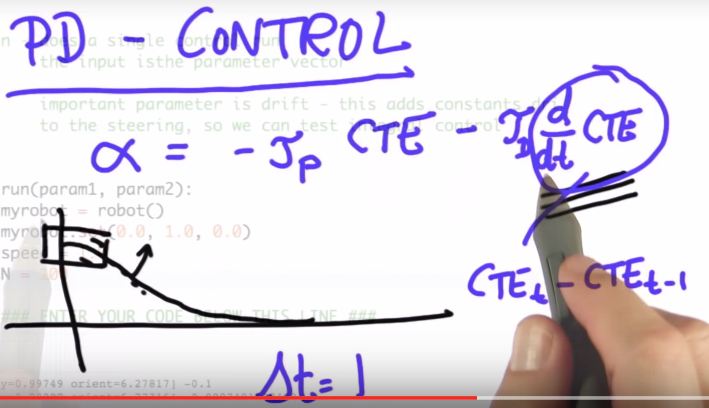


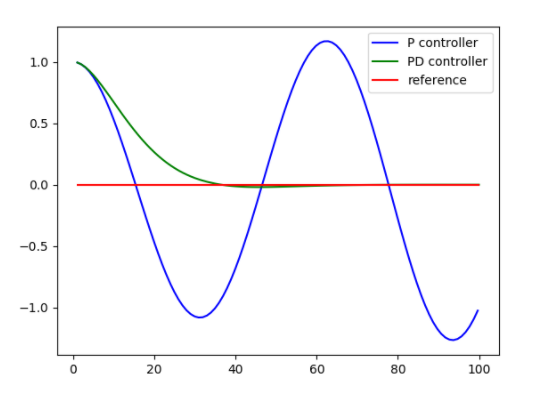
Marginally stable



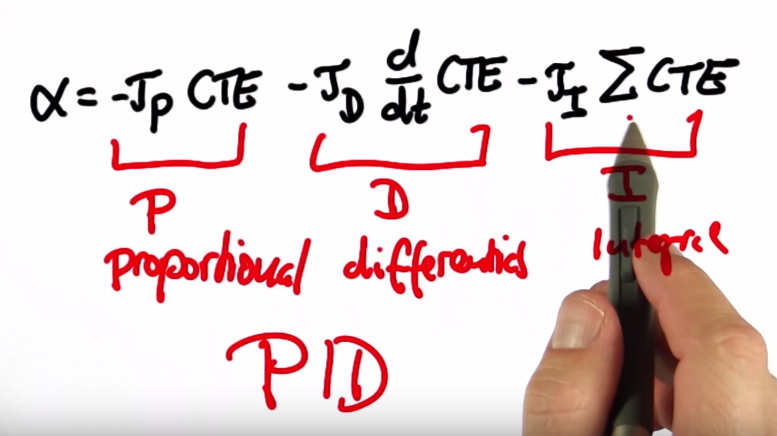


Use PD control to avoid overshoot

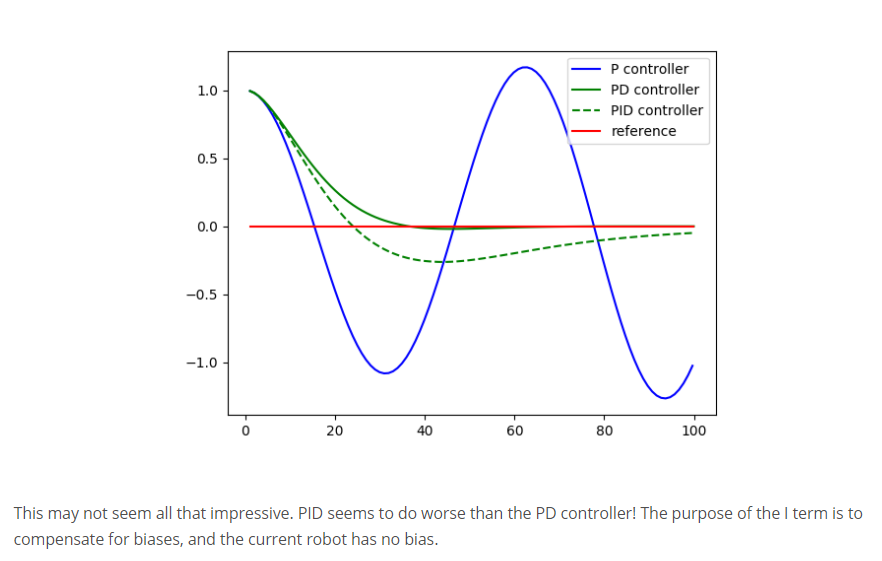




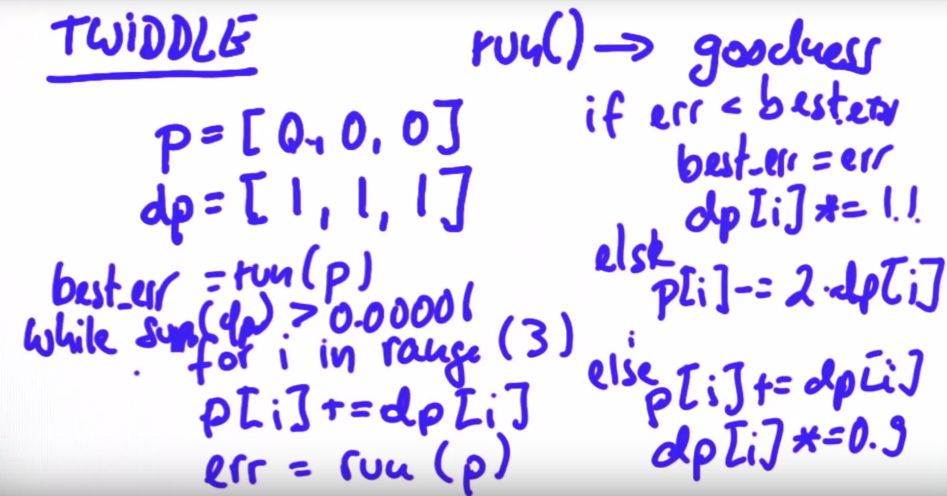
16.11 Use sum/integral of all observed crosstrack errors to compensate bias and correct robot’s motion



When no bias, PD > PID



16.13 twiddle



With bias:

robot.set\_steering\_drift(10 / 180 \* np.pi)

