

# 2WHEELER

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# OVERVIEW

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- Inspiriert vom Segway Design
- Selbstbalanzierendes zweirädriges Gefährt



# BENUTZTE HARDWARE

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- 1x NXT Brick (mit externer Stromquelle)
- 1x NXT Berührungssensor
- 1x NXT Farbsensor
- 2x NXT Servomotor

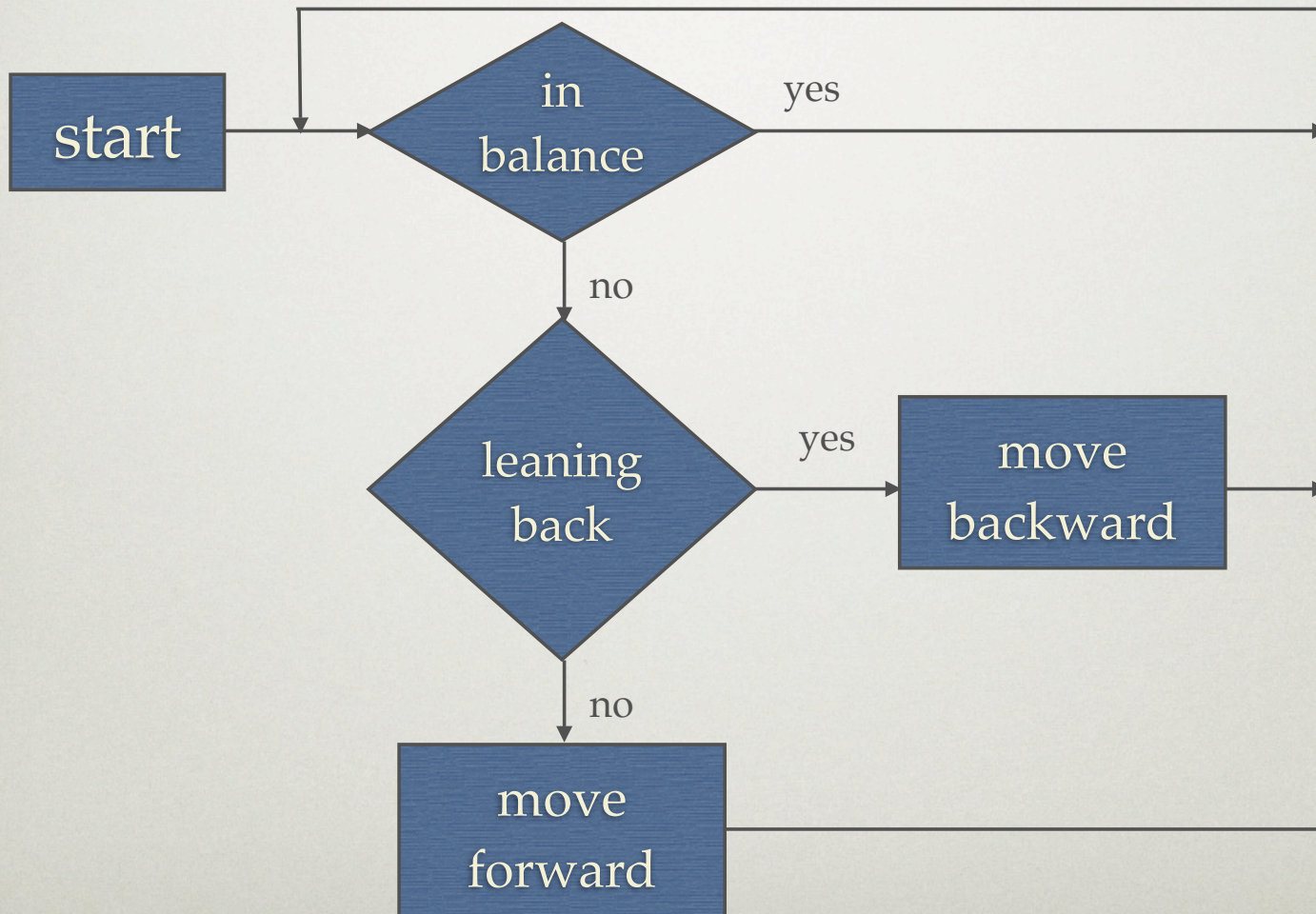


# BENUTZTE SYSTEME

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- Not eXactly C (<http://bricxcc.sourceforge.net/nxc/>)
- Mac OsX
- Xcode
- Windows 7 (32Bit)
- Brixc Command Center

# FLOW





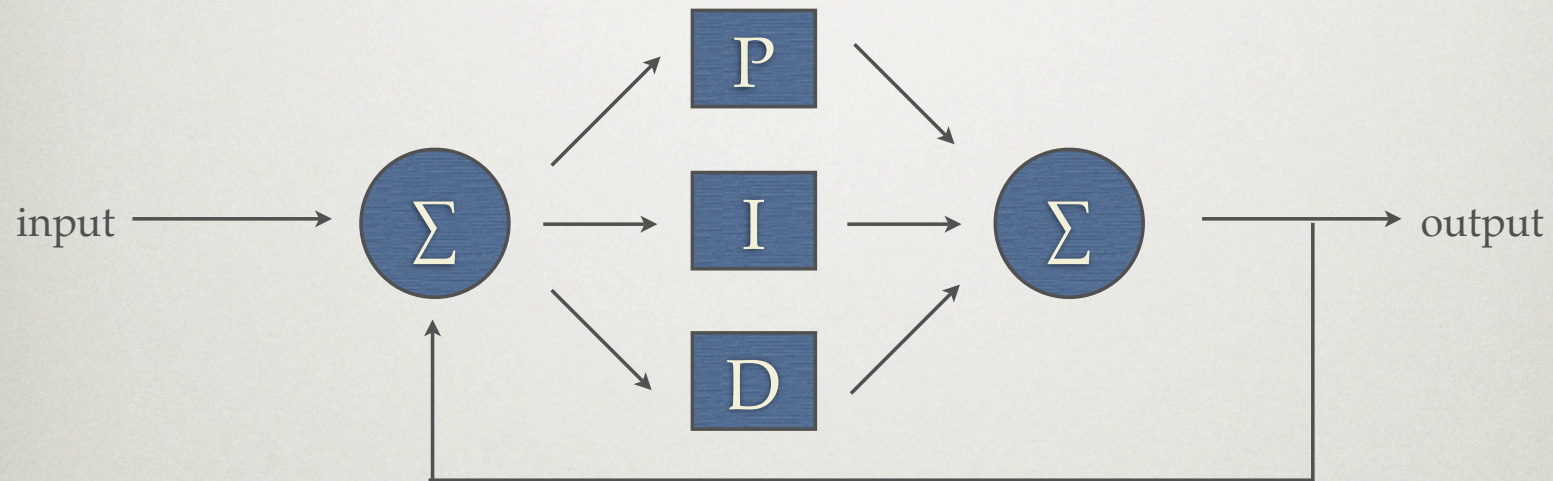
# PID CONTROLLER

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- a generic control loop feedback mechanism
- calculates an "error" value as desired setpoint
- involves three separate parameters (P, I, D)
- the weighted sum of these three is used to adjust the process

# PID CONTROLLER

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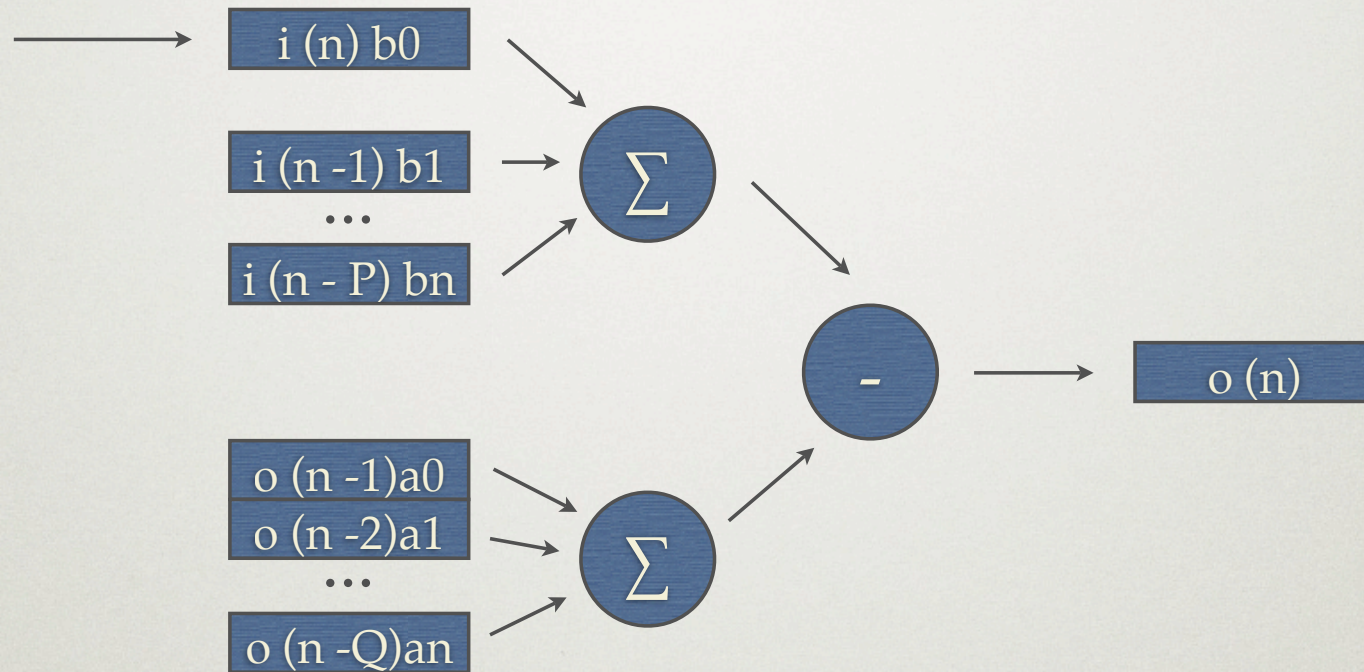
Proportional Integral Derivative



# IIR LOW PASS

## INFINITE IMPULSE RESPONSE

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# CONCLUSION

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- Sensor
- Hardware problem
- Remotecontrol