Motion Control:

* Open-loop motion control – not controlable
* Feedback control
* Closed-loop control system

Differential drive update equation in Intro to mobile robots page 272. Map location

Behavior-based control systems like the idea of no map and therefore no localization task. This is implicit by the behaviors executed by the robot.

Main problems with behavior-based “localization”: Not scalable, requires behaviors to be programmed to give desired behavior, which can be tricky.

SLAM – simultaneous localization and mapping. Autonomous map building

V-SLAM – Davison 2003. Slam with only one camera as sensor

(extended) Potential Field – repulsive and attractive forces

Subtract IR-readings to control direction of turn

Deliberate and reactive strategies. Deliberate – top-down architecture where every action is planned. Reactive – bottom-up architecture where action chosen as reaction.

Hybrid – some mixture of both where reactive actions take control of agents safety while higher level actions are concerned about goals. I.e. Ractive action packages, prs (procedural reasoning system, arch for flexible contrl rule invocation, schemas, internalized plans.