• Project Description
• Autonomous system example
• Course Organization
• ARM Cortex M0 overview
Hardware
adapted from Thrun et al, JFR 23(9) 2006
128K Flash
16K RAM
32 bit ARM 7 core
48 MHz
A/D, D/A
2x SPI
Touch sense input
Timers
Challenge: Embedded real-time programming

Figure 12.10: Illustration of the priority inheritance protocol. Task 1 has highest priority, task 3 lowest. Task 3 acquires a lock on a shared object, entering a critical section. It gets preempted by task 1, which then tries to acquire the lock and blocks. Task 3 inherits the priority of task 1, preventing preemption by task 2.