

Team Project: A Surveillant Robot System

Status Report : 04/05/2005

Little Red Team

Chankyu Park (Michael)

Seonah Lee (Sarah)

Qingyuan Shi (Lisa)

Chengzhou Li

JunMei Li

Kai Lin



Agenda

- ☐ Problems
- ☐ Team meeting
- ☐ Progress report



Problems

- Lego Mindstorms and Vision Command operates on Windows 98.
 - But, OS of our notebook computers is Windows XP professional or Home Edition. So, We need XP patch to Mindstorms and Vision command
 - → This problem is solved.
- Basically, Lego company does not provide the communication or data transfer functionality between Vision Commander and Mindstorms → leJOS support Java Vision API
- Java Communication API does not support USB communication. → We directly should implement that functionality. → leJOS can support USB communication
- On behalf of remote experiment, we need some fixed IP address not automatic IP as DHCP. → I will ask walter how to get it. → Wireless Access Point



Problems - new

- It is difficult to implement the robot behavior.
 - Navigation (wandering) : Mindstorms just provide two touch sensors and one light sensor. → **our constraints**
 - There are limitations to implement autonomous and intelligent behavior of robot system.
 - It is not easy to navigate wide space in the room because it is not maze using narrow paths.
 - We are now trying to various tests. Ex) only touch sensors, only light sensor and both case together : three cases.

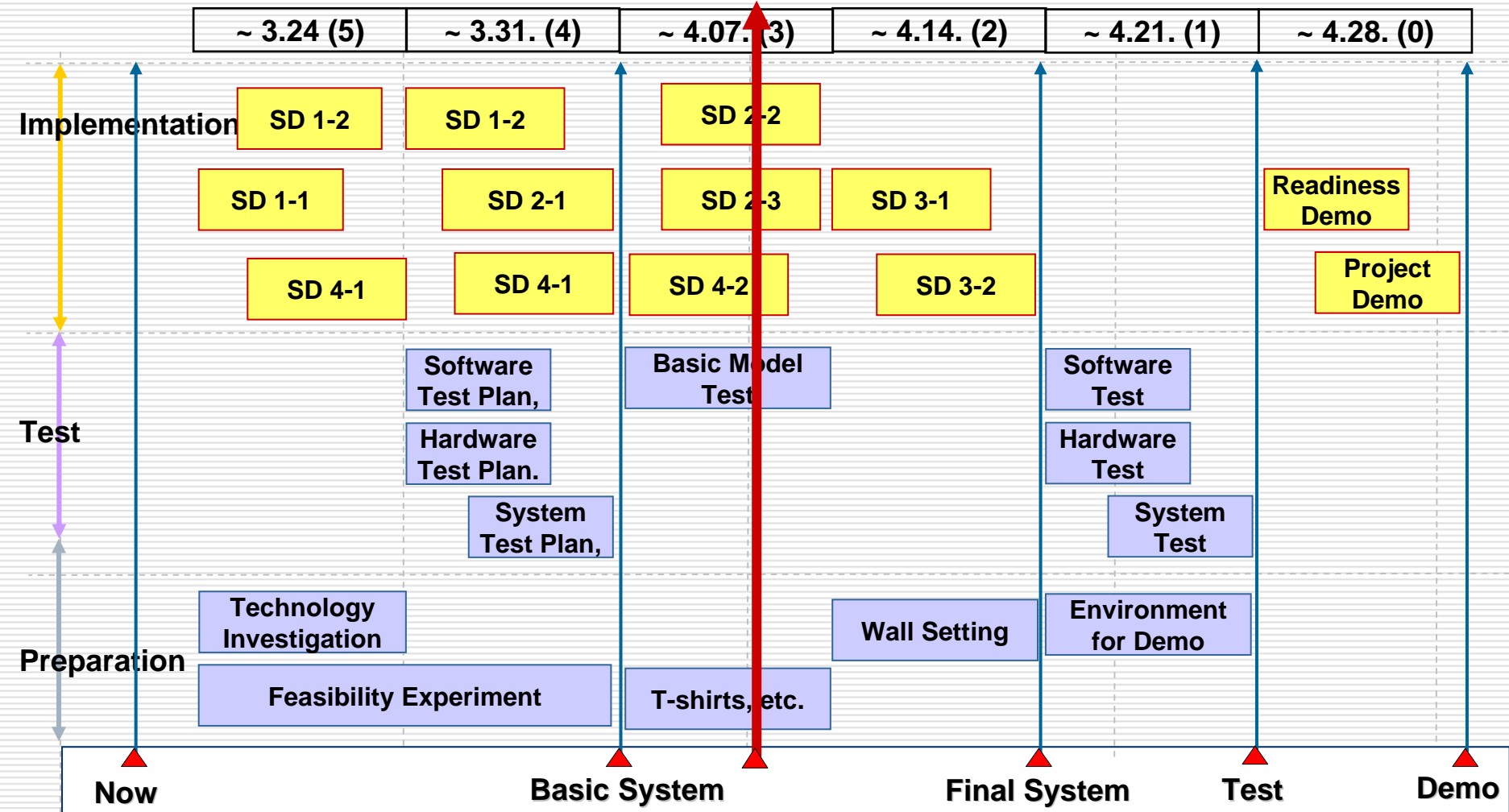


Team meeting

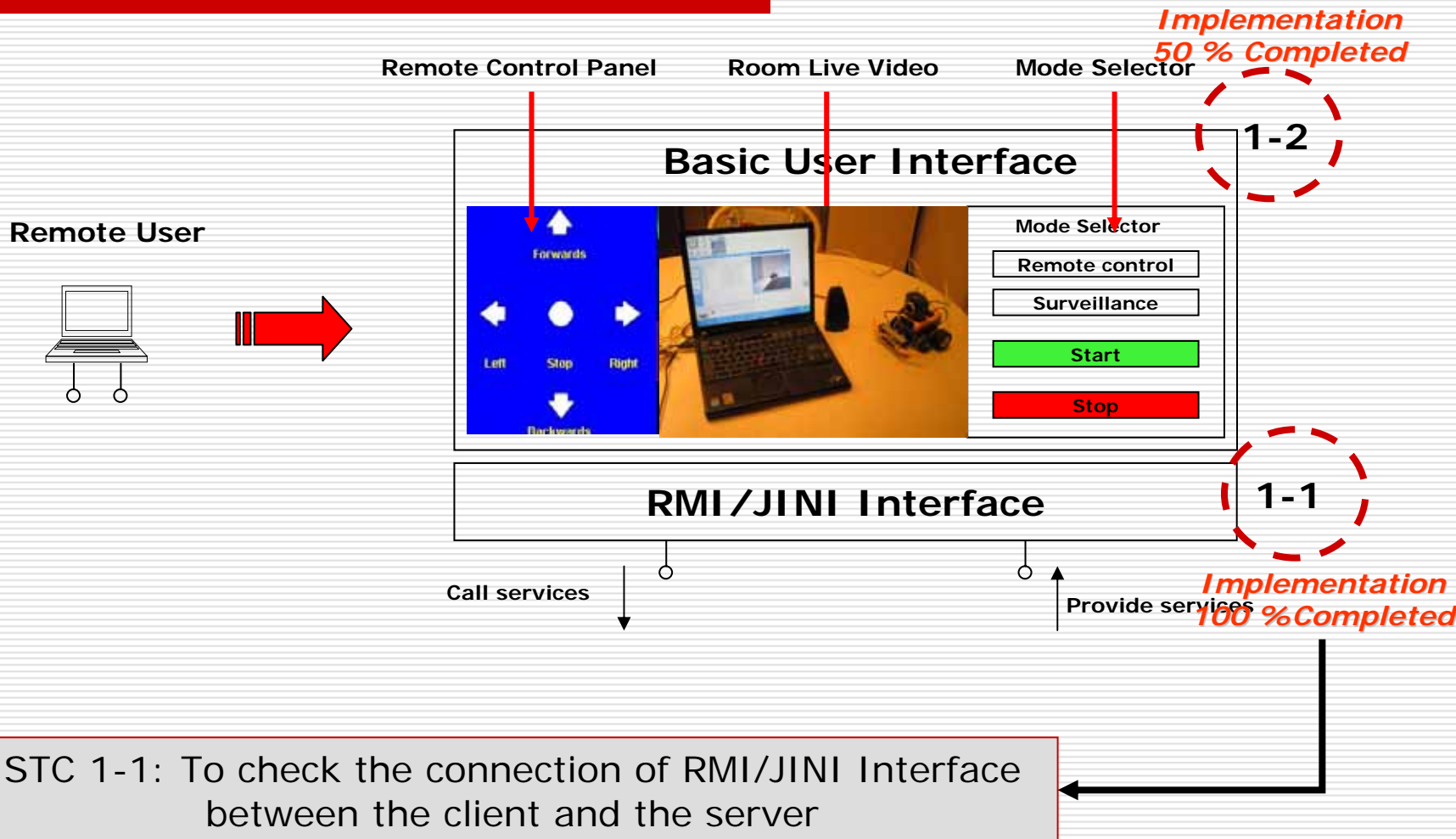
- After last progress report, the regular team meeting -> two , contingency meeting -> two
 - Most of topics in meetings was implementation issues.



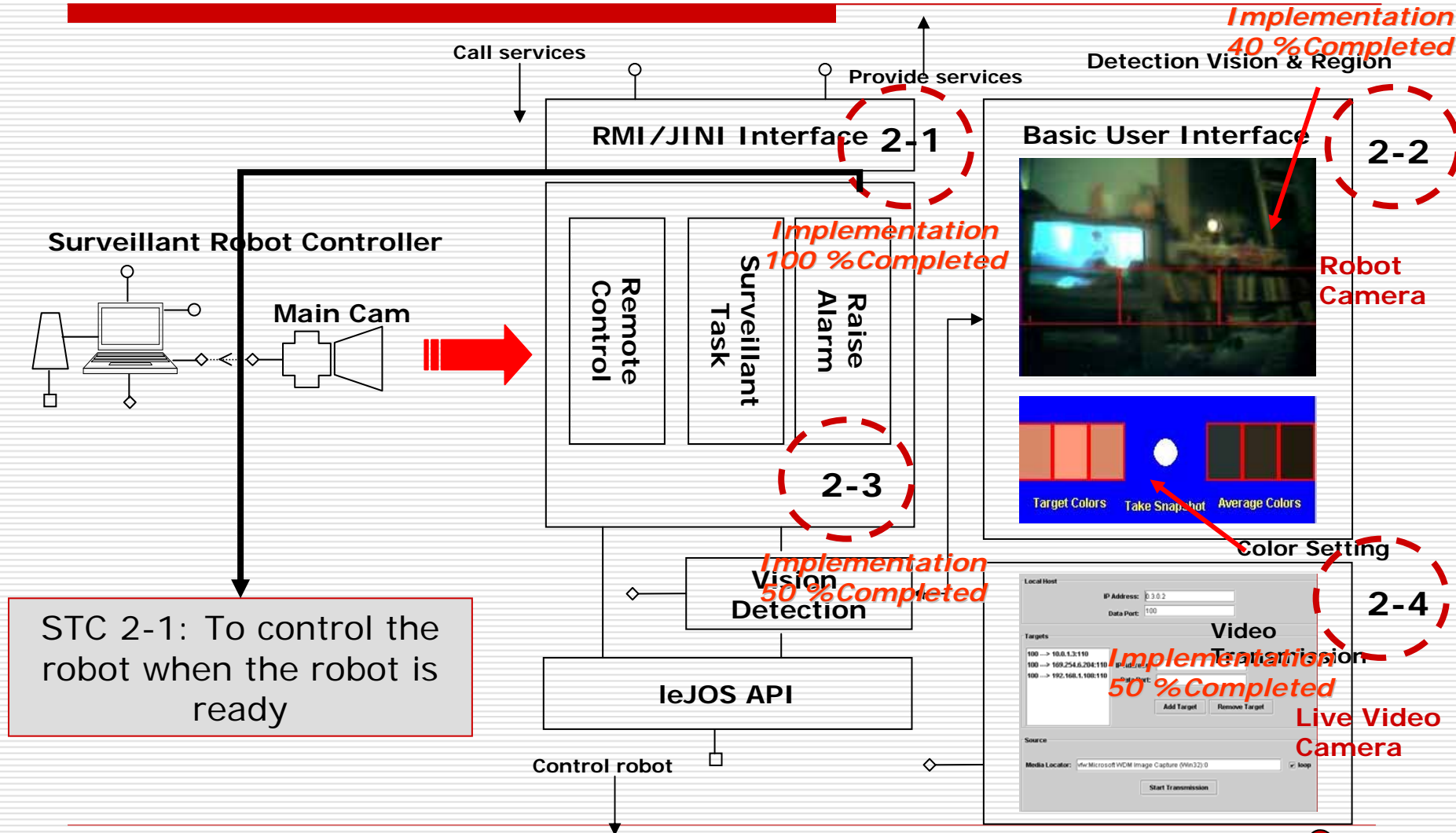
Task Plan



Software Design – SD#1

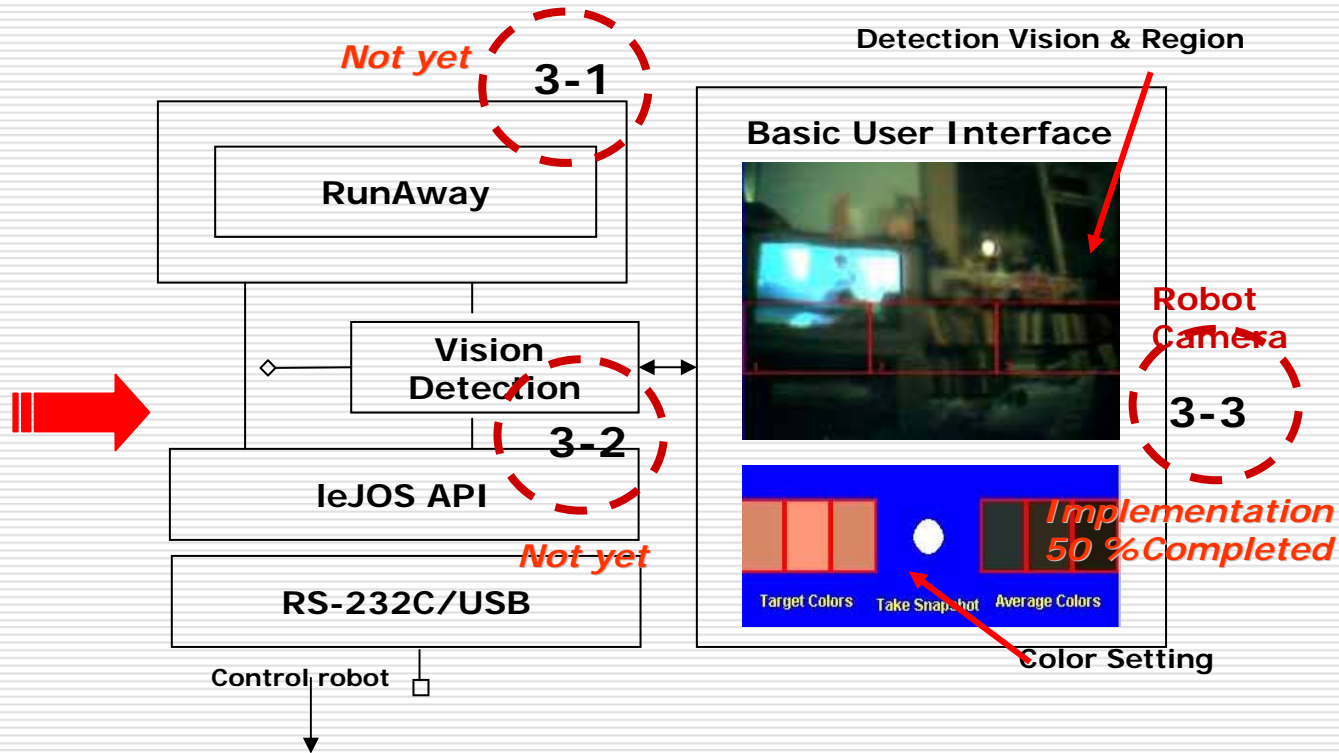
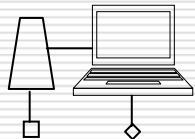


Software Design – SD#2



Software Design – SD#3

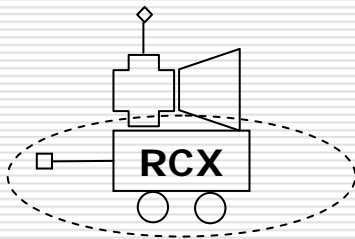
Intruder Robot Controller



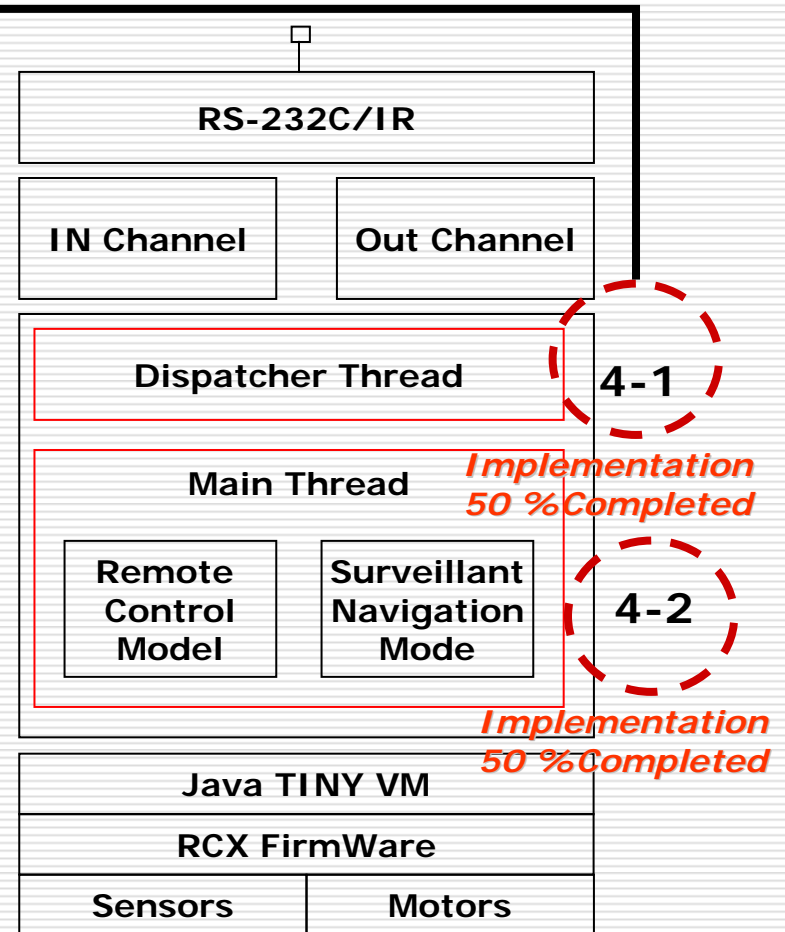
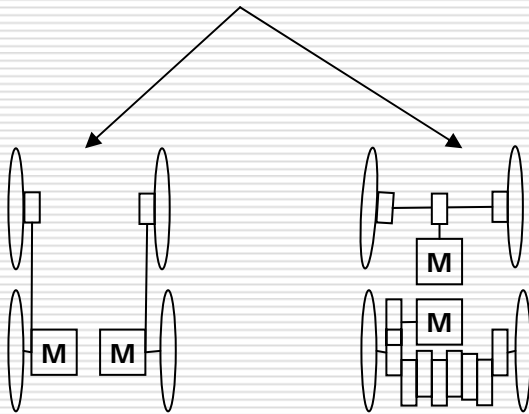
Software Design – SD#4

STC4-1: To check dispatcher thread

Surveillant Robot



Two wheel drive mechanisms



April 5, 2005

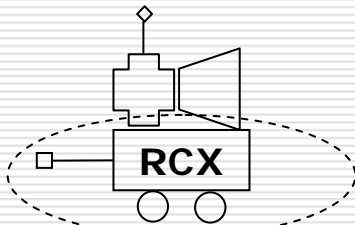
HTC1-1, HTC1-2 is testing



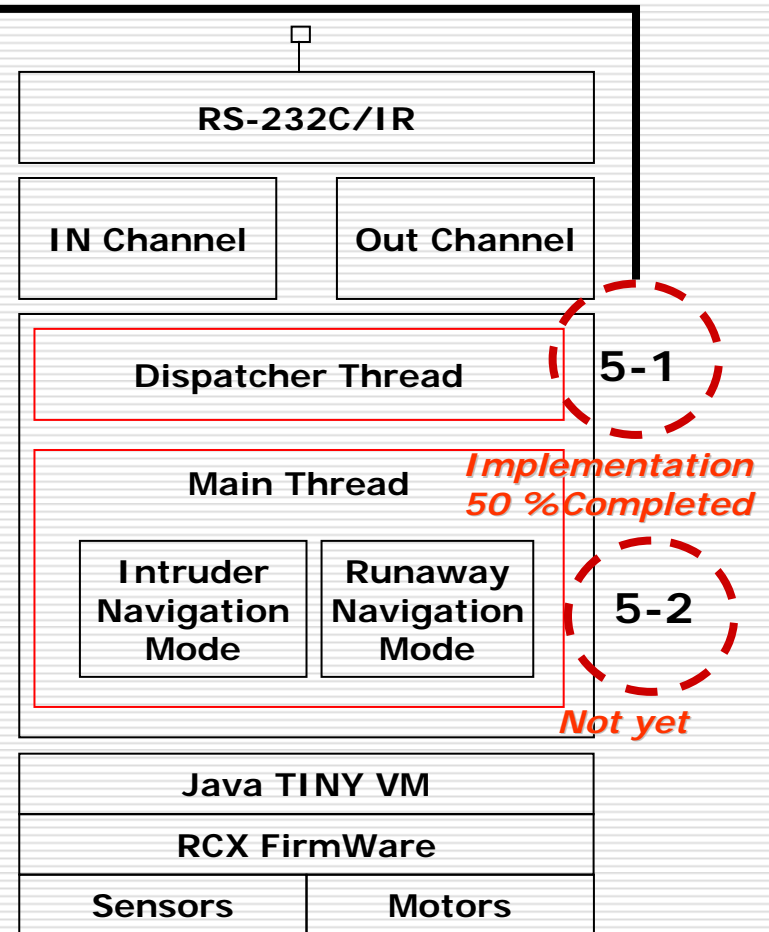
Software Design – SD#5

STC5-1: To check dispatcher thread

Intruder Robot



HTC2-1 is testing



Progress status

- ❑ Actual vs plan : 50% of the whole system is completed and tested.
- ❑ From next week, we will start to integration test between all software and hardware.

