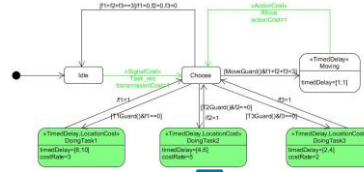


Requirements Analysis

Extended MARTE State Machine

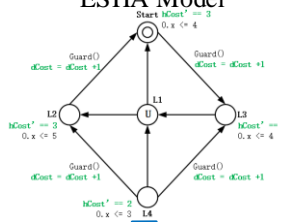


Requirements Constraints (with natural language)

The probability of finishing three tasks within 80 min
 Guarantee finishing three tasks within 80 min
 Expected value of energy cost during a process

Mapping

ESHA Model

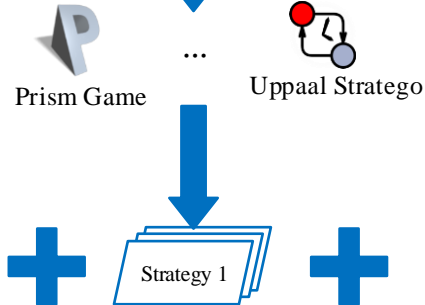


PBLTL Specifications

```
A[] Robot.terminate
Pr[<=80](<> Robot.terminate)
E[<=80; 50] (max: Robot.ter)
simulate 50[<=80][Robot.ter]
```

Model Construction

Strategy Synthesis



System Evaluation

