

(move roomb rooma)
(pick ball2 rooma right)
(move rooma roomb)
(drop ball2 roomb right)
(move roomb rooma)
(pick ball1 rooma right)
(move rooma roomb)
(drop ball1 roomb right)

Figure 1: Overview of the plan

```
(:action move
:parameters (roomb rooma)
:precondition
  (and
    (room roomb)
    (room rooma)
    (at-robby roomb)
  )
:effect
  (and
    (at-robby rooma)
    (not
      (at-robby roomb)
    )
  )
)

(:action pick
:parameters (ball2 rooma right)
:precondition
  (and
    (ball ball2)
    (room rooma)
    (gripper right)
    (at ball2 rooma)
    (at-robby rooma)
    (free right)
  )
:effect
  (and
    (carry ball2 right)
    (not
      (at ball2 rooma)
    )
    (not
      (free right)
    )
  )
)
```

```

    )
)
(:action move
:parameters (rooma roomb)
:precondition
  (and
    (room rooma)
    (room roomb)
    (at-robby rooma)
  )
:effect
  (and
    (at-robby roomb)
    (not
      (at-robby rooma)
    )
  )
)
)
(:action drop
:parameters (ball2 roomb right)
:precondition
  (and
    (ball ball2)
    (room roomb)
    (gripper right)
    (carry ball2 right)
    (at-robby roomb)
  )
:effect
  (and
    (at ball2 roomb)
    (free right)
    (not
      (carry ball2 right)
    )
  )
)
)
(:action move
:parameters (roomb rooma)
:precondition
  (and
    (room roomb)
    (room rooma)
    (at-robby roomb)
  )
:effect
  (and
    (at-robby rooma)
    (not
      (at-robby roomb)
    )
  )
)
)
(:action pick
:parameters (ball1 rooma right)
:precondition
  (and

```

```

        (ball ball1)
        (room rooma)
        (gripper right)
        (at ball1 rooma)
        (at-robby rooma)
        (free right)
    )
    :effect
    (and
        (carry ball1 right)
        (not
            (at ball1 rooma)
        )
        (not
            (free right)
        )
    )
)
(:action move
:parameters (rooma roomb)
:precondition
    (and
        (room rooma)
        (room roomb)
        (at-robby rooma)
    )
:effect
    (and
        (at-robby roomb)
        (not
            (at-robby rooma)
        )
    )
)
(:action drop
:parameters (ball1 roomb right)
:precondition
    (and
        (ball ball1)
        (room roomb)
        (gripper right)
        (carry ball1 right)
        (at-robby roomb)
    )
:effect
    (and
        (at ball1 roomb)
        (free right)
        (not
            (carry ball1 right)
        )
    )
)
)

```