# Performance Analysis

## Response Times



Robert Davis (2007)

W1a = 1 + 0.93 = w2a

### READY\_TO\_PICKUP\_PAD1 Response time (200)

wm = bmax = 1

w1m = 1 +  ([(1+0.00976)/200] \* 0.93 )

[(1+0.00976)/200] = 0.0050488 = Ceiling 1

1 + (1 \* 0.93 ) = 1.93

w2m = 1 + ([1.93+0.00976)/200] \* 0.93 )

[(1+0.00976)/200] = 0.0050488 = Ceiling 1

1  + (1 \* 0.93) = 1.93

Rm = 0 + 1.93 + 0.93 = 2.86 (milliseconds)

### EMERGENCY\_STOP Response time (10)

wm = bmax = 1

w1m = 1 +  ([(1+0.00976)/10] \* 0.93 )

[(1+0.00976)/10] = 0.0050488 = Ceiling 1

1 + (1 \* 0.93 ) = 1.93

w2m = 1 + ([1.93+0.00976)/10] \* 0.93 )

[(1+0.00976)/10] = 0.0050488 = Ceiling 1

1  + (1 \* 0.93) = 1.93

Rm = 0 + 1.93 + 0.93 = 2.86 (milliseconds)

### OUTPUT\_ROBOT\_FINSHED Response time (1000)

wm = bmax = 1

w1m = 1 +  ([(1+0.00976)/1000] \* 0.93 )

[(1+0.00976)/1000] = 0.0050488 = Ceiling 1

1 + (1 \* 0.93 ) = 1.93

w2m = 1 + ([1.93+0.00976)/1000] \* 0.93 )

[(1+0.00976)/1000] = 0.0050488 = Ceiling 1

1  + (1 \* 0.93) = 1.93

Rm = 0 + 1.93 + 0.93 = 2.86 (milliseconds)