

**FORT COLLINS
ROBOT FIRE FIGHTING
CHALLENGE**

Fire-Extinguishing Scoresheet

Builder Name: _____

Robot Name: _____

		<u>Trial 1</u>	<u>Trial 2</u>	<u>Trial 3</u>
<u>Operating Mode Factor</u>				
Tether: 1.2 if tethered; else 1.0	Tether:			
Sound: 0.95 if started by sound; else 1.0	Sound:			
Return: 0.8 if robot returns to base; else 1.0	Return:			
Extinguisher: 1.0 if using air; else 0.85	Nonair:			
Mode Factor: Tether * Sound * Return * Nonair	MF:			
<u>Room Factor</u>				
1st = 1.0, 2nd = 0.85, 3rd = 0.50, 4th = 0.35	RF:			
<u>Penalties</u>				
Distance slid along wall, in cm	Slide:			
Wall-sliding penalty: Slide/2 (round down)	WP:			
Touching candle or base while lit: 50 points	TP:			
<u>Trial Time</u>				
Start Time	Start:			
End Time	End:			
Actual Time (End - Start, in sec)	AT:			
<u>Scoring</u>				
Time Score: AT + WP + TP	TS:			
Final (Operating) Score: TS * RF * MF	OS:			

Successful Trials:

Total Score:

Ranking: robots are ranked first by number of successful trials, and second by total score (where a low score beats a high one, as in golf).

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Robot Hide & Seek Scoresheet

Builder Name: _____

Robot Name: _____

		<u>Trial 1</u>	<u>Trial 2</u>	<u>Trial 3</u>
<u>Operating Mode Factor</u>				
Beacon mode: 1.0 if beacon on, 0.75 if off	BMF:			
Candle mode: 0.75 if candle present, else 1.0	CMF:			
Voice mode: 0.85 if speech used, else 1.0	VMF:			
Mode Factor: Tether * Sound * Return * Nonair	MF:			
<u>Room Factor</u>				
1st = 1.0, 2nd = 0.85, 3rd = 0.50, 4th = 0.35	RF:			
<u>Penalties</u>				
Distance slid along wall, in cm	Slide:			
Wall-sliding penalty: Slide/2 (round down)	WP:			
<u>Trial Time</u>				
Start Time	Start:			
End Time	End:			
Actual Time (End - Start, in sec)	AT:			
<u>Scoring</u>				
Time Score: AT + WP	TS:			
Final (Operating) Score: TS * RF * MF	OS:			

Successful Trials:

Total Score:

Ranking: robots are ranked first by number of successful trials, and second by total score (where a low score beats a high one, as in golf).