

## Designsafe Report

Application: AED Tracking System  
 Description: Analysis of safety risks involved in design of AED Tracking System  
 Assessment Type: Detailed  
 Sources: personnel experiences, ANSI B11 standards, OSHA 1910 regulations, product spec sheets, and research  
 Risk Scoring System: ANSI B11.0 (TR3) Two Factor

Analyst Name(s):

Class:

Location:

Item Id	User	Task	Hazard
1-1-1	maintenance technician/ installer	set-up or changeover	electrical / electronic : power supply interruption
1-1-2	maintenance technician/ installer	set-up or changeover	noise / vibration : interference with communications / medical devices
1-2-1	maintenance technician/ installer	periodic maintenance	electrical / electronic : shorts / arcing / sparking
1-2-2	maintenance technician/ installer	periodic maintenance	electrical / electronic : Fail to replacebattery (properly)
1-2-3	maintenance technician/ installer	periodic maintenance	heat / temperature : radiant heat
1-2-4	maintenance technician/ installer	periodic maintenance	material handling : screw mishandling
1-2-5	maintenance technician/ installer	periodic maintenance	Other : laceration from materials
1-3-1	maintenance technician/ installer	trouble-shooting / problem solving	electrical / electronic : unexpected start up / incorrect tracking
1-3-2	maintenance technician/ installer	trouble-shooting / problem solving	heat / temperature : radiant heat
1-3-3	maintenance technician/ installer	trouble-shooting / problem solving	Other : lack of GPS signal transmission
2-1-1	passer by / non-user	Common Tasks	noise / vibration : interference with communications / medical devices
2-1-2	passer by / non-user	Common Tasks	Other : lack of GPS signal transmission
2-1-3	passer by / non-user	Common Tasks	Other : Lack of phone service
2-2-1	passer by / non-user	walk near machinery	slips / trips / falls : slip
2-2-2	passer by / non-user	walk near machinery	environmental / industrial hygiene : trace chemicals from glue, plastic, or other material

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Failure Mode	Initial Assessment		Risk Level	Risk Reduction Methods
	Severity	Probability		
poor signal	Moderate	Unlikely	Low	
improper signal	Moderate	Remote	Negligible	
improper circuitry	Moderate	Remote	Negligible	
incorrect replacement/ failure to replace battery on time	Serious	Unlikely	Medium	place reminder sticker on case packaging instructing user to replace battery and providing contact information for reordering
electric device	Minor	Remote	Negligible	
injury resulting from incorrect replacement of screw/ sharp edges	Minor	Unlikely	Negligible	
sharp edges	Moderate	Unlikely	Low	attach PCB to case with screws
incorrect attachment	Minor	Remote	Negligible	
incorrect attachment	Moderate	Remote	Negligible	
poor location within building to receive signal	Moderate	Unlikely	Low	
signaling during nearby AED use	Moderate	Remote	Negligible	
poor location within building	Moderate	Unlikely	Low	
within dead zone	Moderate	Unlikely	Low	
loose parts on floor due to incorrect maintenance	Moderate	Remote	Negligible	
person reacts to chemicals	Moderate	Remote	Negligible	

**Final  
Assessment**

<b>Severity</b>	<b>Probability</b>	<b>Risk Level</b>	<b>Responsible</b>	<b>Status</b>
Moderate	Unlikely	Low	Patricia Han	Complete [12/1/2012]
Moderate	Remote	Negligible	Stephanie Borinsky	Complete [12/1/2012]
Moderate	Remote	Negligible	Jacqueline Kading	Complete [12/1/2012]
Serious	Remote	Low	Patricia Han	Complete [12/1/2012]
Minor	Remote	Negligible	Stephanie Borinsky	Complete [12/1/2012]
Minor	Unlikely	Negligible	Jacqueline Kading	Complete [12/1/2012]
Moderate	Remote	Negligible	Patricia Han	Complete [12/1/2012]
Minor	Remote	Negligible	Stephanie Borinsky	Complete [12/1/2012]
Moderate	Remote	Negligible	Jacqueline Kading	Complete [12/1/2012]
Moderate	Unlikely	Low	Patricia Han	Complete [12/1/2012]
Moderate	Remote	Negligible	Stephanie Borinsky	Complete [12/1/2012]
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