

## Traceability Matrix: Requirements to System Design Elements

drone_swarm_requirements		
ID	Sections	Diagrams
SW-01	3.2.2 SwarmInterface	SD-17, SD-18, SD-19, SD-20,
	4.4.3 Initial Sectors Assigned	
	5.5.2 Agent ↔ SwarmInterface Communication	
	5.8 External Interface Architecture	
	6.5.2 Initialisation Events Bypassing Rumour Mill	
SW-02	6.8.1 Degraded Health Event	
	3.2.3 Agents (UAVs)	
	4.3 High-Level Operational Workflow	
	4.4.8 Agent Health Degrades	
	5.5.1 Agent ↔ Agent Communication	
	5.5.3 Pulse Mechanism	
	6 Rumour Mill Protocol	
	7 Sector Allocation Market	
	8 Agent Task & Role Allocation	
SW-03	8 Agent Task & Role Allocation	
SW-04		
SW-05		
SW-06		
SW-07	3.2 UAV Platform and Flight Systems	
	4.2 External Components	
	8.3 Safety and Local Emergency Behaviour	
SR-02		
SR-03	2.3 Swarm Context	
	3.2 UAV Platform and Flight Systems	
	8.3 Pulse Safety Mechanism and Buffer Zones	
SR-04		
SR-06		
SR-07		
SR-08		
SR-09		
SR-10		
SR-11		
SR-12		

system_requirements		
ID	Sections	Diagrams
PM-01	4 Protocol Module Architecture	
	5 Rumour Mill Protocol	
	5.4 Event Dissemination and Convergence	
PM-02		
PM-03	4.3 Agent Architecture; 6 Sector Allocation Market; 7 Task & Role Allocation	
PM-04		
PM-05		
PM-06		
PM-07		
PM-08		
PM-09		
PM-10		
PM-11		
PM-12		
PM-13		
PM-14		
PM-15		
PM-16		
PM-17		

subsystem_requirements		
ID	Sections	Diagrams
CON-01	4.4 Consensus Sub-module	
	5.2 Rumour Model	
	8.5 Formal Fault Tolerance Model	
CON-02		
CON-03		
CON-04		
CON-05		
CON-06		
CON-07		
CON-08		
CON-09		
CON-10		
CON-11		
CON-12		
CON-13		
CON-14		
CON-15		
INF-01		
INF-02		

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drone_swarm_requirements		
ID	Sections	Diagrams
SR-13		
SR-14		
SR-15		
SR-16		
SR-17		
SR-18		
SR-19		
SR-20		
SR-21		
SR-23		
SR-24		
SR-25		
SR-05		
SR-01		
SR-22		
SR-26		

system_requirements		
ID	Sections	Diagrams
PM-18		
PM-19		
PM-20		
PM-21		
SSR-01		
SSR-02		
SSR-03		
SSR-04		
SSR-05		
SSR-06		
SSR-07		
SSR-08		
SSR-09		
SSR-10		
SSR-11		
SSR-12		
SSR-13		
SSR-14		
SSR-15		
SSR-16		
SSR-17		
SSR-18		
SSR-19		
SSR-20		
SSR-21		
SSR-22		
SSR-23		
SSR-24		
SSR-25		
SSR-26		
PM-14B		
PM-14C		

subsystem_requirements		
ID	Sections	Diagrams
INF-03		
INF-04		
INF-05		
INF-06		
INF-07		
INF-08		
INF-09		
MSG-01		
MSG-02	4.6 Communication Model 5.3 Message Types 5.5 Reliability and Acknowledgement Strategy	
MSG-03		
MSG-04		
MSG-05		
MSG-06		
MSG-07		
MSG-08		
MSG-09		
MSG-10		
MSG-11		
MSG-12		
MSG-13		
MSG-14		
MSG-15		
MSG-16		
MSG-17		
MSG-18		
MSG-19		
MSG-20		
SIS-01		
SIS-02		
SIS-03		
SIS-04		
SIS-05		

Traceability Matrix: Requirements to System Design Elements

drone_swarm_requirements		
ID	Sections	Diagrams

system_requirements		
ID	Sections	Diagrams

subsystem_requirements		
ID	Sections	Diagrams
SIS-06		
TAL-01		
TAL-02		
TAL-03		
TAL-04		
TAL-05		
TAL-06		
TAL-07		
TAL-08		
TAL-08A		
TAL-09		
TAL-10		
TAL-11		