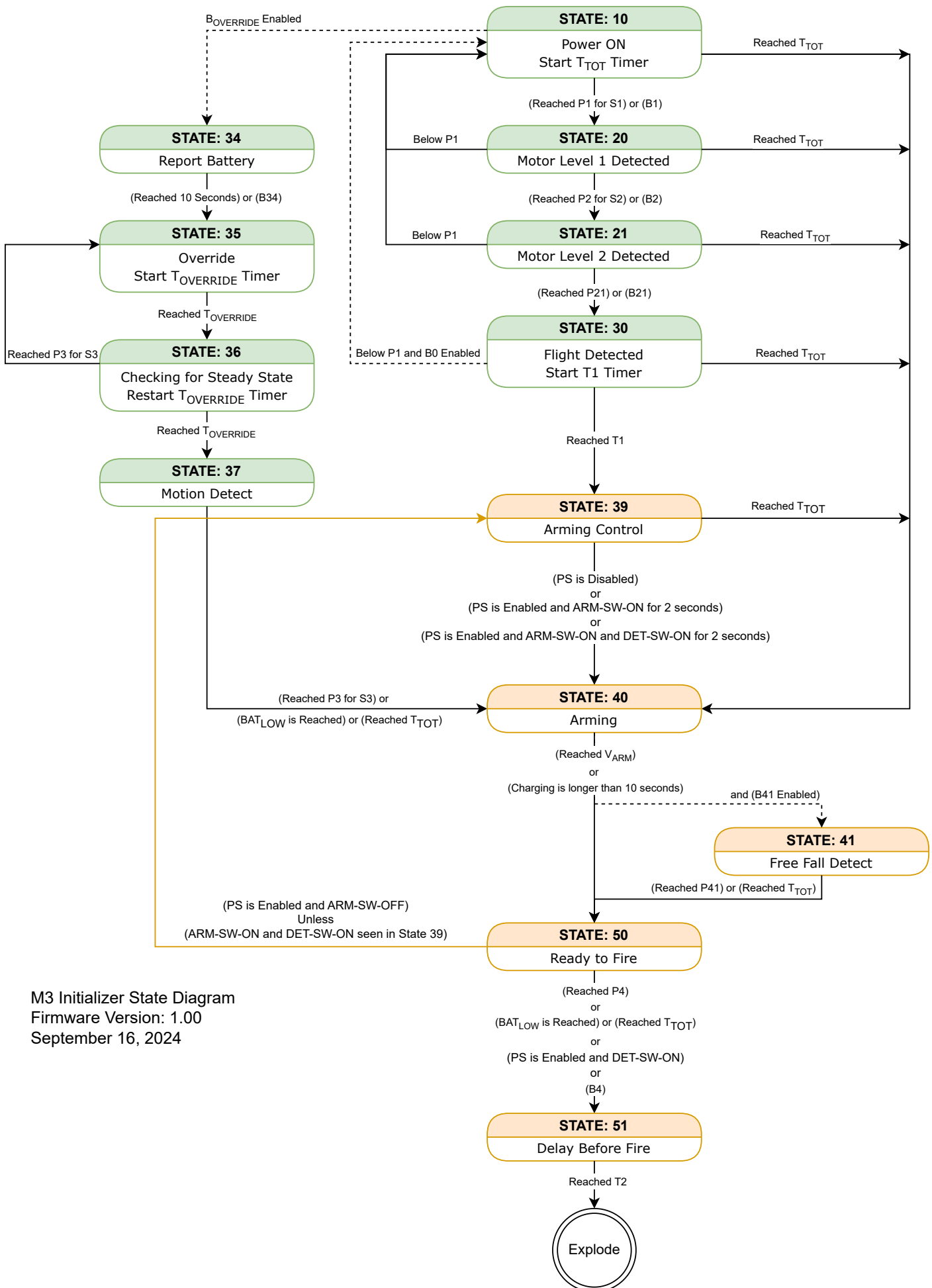




M3 Initializer State Diagram
Firmware Version: 1.00
September 16, 2024

Parameter	Unit	Description	Default	Min:Max
T _{TOT}	minutes	Self Destruct Timer	30	10:300
P1	level	Motor Spin 1 Detection Sensitivity	45	10:200
S1	seconds	Motor Spin 1 Detection Sample Interval	3	1:30
P2	level	Motor Spin 2 Detection Sensitivity	150	50:500
S2	seconds	Motor Spin 2 Detection Sample Interval	2	1:30
P3	level	Motion Detection Sensitivity	50	10:500
S3	seconds	Motion Detection Sample Interval	1	1:30
P21	m/s	Flight Velocity	3	1:30
T1	seconds	Delay from Flight Detect to Arming	30	0:600
P41	milliseconds	Free Fall Detection Duration	300	100:1000
P4	level	Impact Level	1500	1000:7900
P5	milliseconds	Impact Detection Window	20	2:40
P6	0.1%	Sample Weight for Impact Detection	10	1:1000
T2	milliseconds	Delay Before Fire	0	0:65535
B0	bool	Flight Stop Detection Permission	1	0:1
B1	bool	Bypass Motor Detection	0	0:1
B2	bool	Bypass Motor Detection 2	0	0:1
B21	bool	Bypass Flight Detection	0	0:1
B34	bool	Bypass Report Battery	0	0:1
B41	bool	Enable Free Fall Detection	0	0:1
B4	bool	Ignore Impact Detection	0	0:1
B5	bool	Dark Mode	0	0:1
V _{ARM}	1/10 volts	Arming Voltage	60	40:140
BAT _{LOW}	1/10 volts	Low Battery Voltage	23	23:25
B _{OVERRIDE}	bool	Motion Detection Trigger	0	0:1
T _{OVERRIDE}	seconds	Motion Detection Safety Delay	300	0:1800
T3	seconds	Permit Switch Evaluation Time (M3 ONLY)	5	1:60

Status LED's			
State	Green LED	Red LED	Yellow LED
Config	1 Blink then Pause	OFF	OFF
10	Slow Blink	OFF	See Note 1
20	2 Blinks then Pause	OFF	OFF
21	Medium Blink	OFF	OFF
30	Fast Blink	OFF	OFF
34	3 Blinks then Pause	OFF	See Note 1
35	Medium Blink	OFF	OFF
36	OFF	See Note 2	OFF
37	See Note 3	See Note 3	OFF
39	Medium Blink	OFF	OFF
40	Fast Blink	Slow Blink	OFF
41	Fast Blink	Fast Blink	OFF
50	OFF	Fast Blink	OFF
51	OFF	Fast Blink	OFF
Explode	OFF	OFF	OFF

Note 1: The Yellow LED blinks if the battery is low

Note 2: The Red LED is medium blinking. It will fast blink when 30 seconds remain in the T_{OVERRIDE} Timer.

Note 3: If State 37 is achieved, all LED's will remain OFF indefinitely

Note 4: If B5 "Dark Mode" is ENABLED, all LED's will remain OFF 30 seconds after State 40 is reached.

PS: "Permit Switch" flag evaluated on start depending on PWM Inputs. (See Flow Chart 1)