RISK IDENTIFICATION
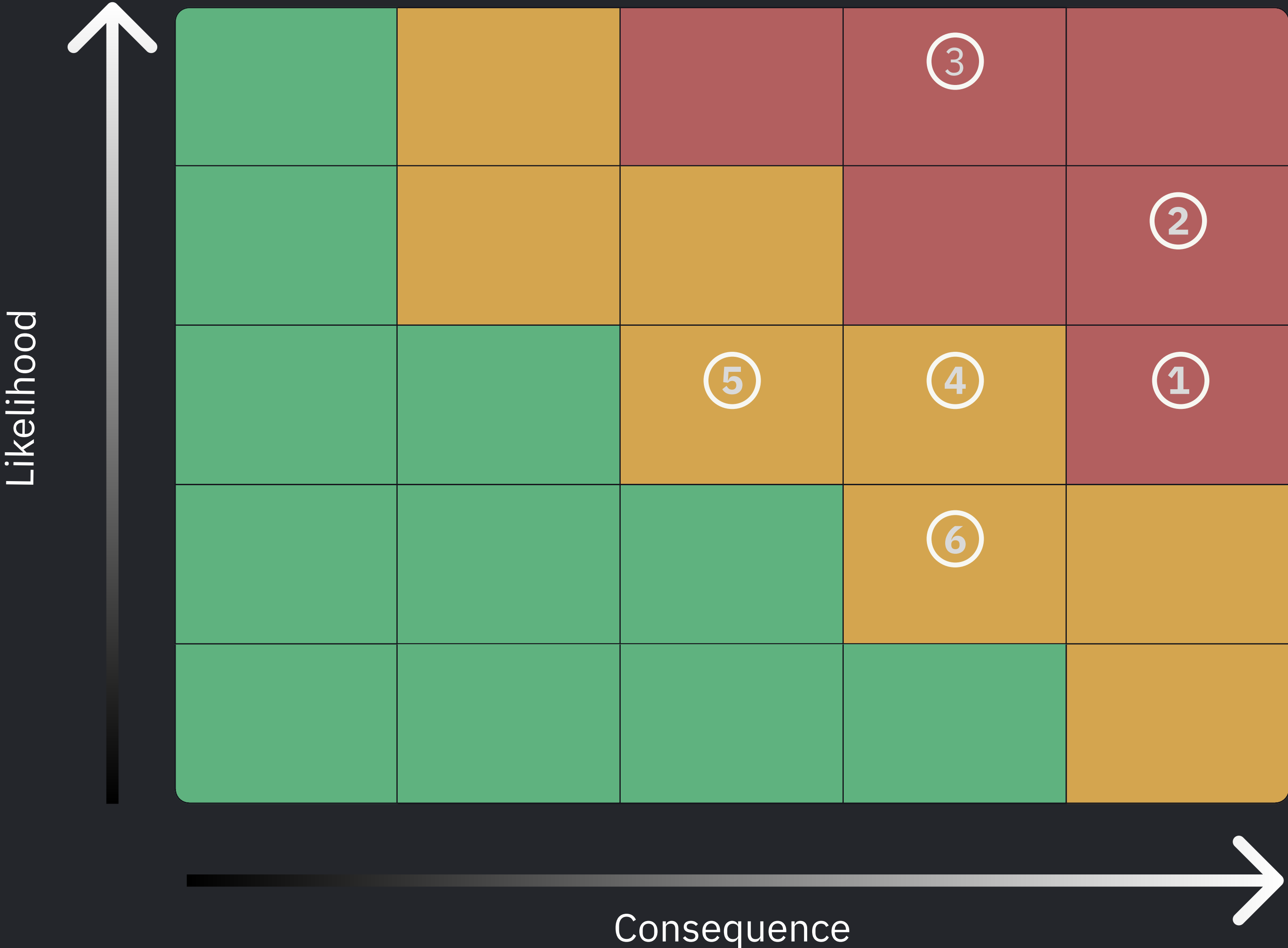
1. Not able to perceive well through smoke
2. Unable to find testing facilities where smoke can be deployed
3. Drone crashes during testing and gets damaged
4. Software and driver incompatibility
5. Team members unavailable during sprints
6. Teammate gets burnout and needs to take a break

RISK MITIGATION

Risk Change	Impact	Mitigation	Risk Change
R1. Problem perceiving through smoke	• Not able to deliver on a fundamental requirement	• Reduce smoke density • Other perceptual degradation (Darkness)	5 -> 2.5
R2. Testing Site	• Prevents all real testing • Greatly modifies integration and testing subsystems	• Find 2 facilities by December • Smoke in simulation, use budget to reserve testing facilities	4 -> 1.5
R3. Drone crash + damage	• Prevents further testing • Might exceed budget	• Industrial sponsor to provide drones • Custom drone which can be repaired	4 -> 2
R4. Software Incompatibility	• Invalidate time estimation • Present blockers	• Use virtualization • Accommodate more slack for interfacing	3 -> 1
R5. Teammates unavailable	• Expert missing, blocked tasks • Backlog increases	• Perform early knowledge transfer • Don't parallelize more than 4 tasks	2.5 -> 1.5
R6. Burnout	• Exhausted team • Subpar work	• Strictly adhere to hours per week • Cycle crunch phase across members	3.5 -> 1

RISK TRACKING

1. Not able to perceive well through smoke - Reduce Consequence
2. Unable to find test smoke at facility - Reduce Consequence and Likelihood
3. Drone crashes and gets damaged - Reduce Consequence and Likelihood
4. Software and Driver Incompatibility - Reduce Consequence and Likelihood
5. Team members unavailable during sprints - Reduce Consequence
6. Teammate gets burnout and needs a break - Reduce Consequence and Likelihood