



Game Design Document (GDD)

Title: Tufan Al-Aqsa

Genre:

2D Action / Tactical Combat / Stylized Platformer

Visual Style:

Metal Slug-inspired pixel art with a grayscale, war-torn Middle Eastern urban setting. Stylized action effects, minimal UI, and intense feedback.

Core Game Summary:

In *Tufan Al-Aqsa*, the player controls a lone underground fighter who maneuvers beneath the ruins of a demolished city using tunnel-digging mechanics, then bursts upward into enemy formations to slice through them with limited, high-impact dashes. The game loops between strategic tunnel navigation and fast-paced swipe-based combat, framed by a phase-based state system and supported by satisfying visual/audio feedback.

Key Mechanics:

- **Tunnel Drawing:** Players draw parabolic curves to move underground
 - **Tunnel Navigation:** Player traverses the tunnel with auto-guided movement
 - **Bursting + Hovering:** Upon reaching the surface, player bursts upward and hovers while awaiting input
 - **Combat:** Limited-charge swipe dashes to eliminate enemies in proximity
 - **Game Phases:** Structured state manager defines TunnelDrawing, TunnelNavigation, Hovering, Combat, Idle
 - **Spatial Context Awareness:** System differentiates logic and input above vs underground
 - **Enemy System:** Includes countdown-based threats and health variance
 - **Swipe Input Manager:** Detects valid combat swipes
 - **Combat Feedback:** Includes camera shake, particles, score animation, trail effects
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User Stories and Acceptance Criteria

Game Phase System

User Story	Acceptance Criteria
As a developer, I want to manage the game in distinct phases so that logic/input are scoped properly	- Game only accepts tunnel drawing in TunnelDrawing phase - Only Combat inputs are accepted in Combat phase - Each transition must unlock input based on the phase logic
As a developer, I want other scripts to subscribe to phase changes	- All systems receive phase change event callbacks (e.g., TunnelDrawer disables on Combat)

Spatial Context Awareness

User Story	Acceptance Criteria
As a system, I need to know if the player is above or underground	- <code>PlayerContextManager.CurrentLocation</code> returns correct value based on Y-axis
As a system, I want to restrict underground movement to tunnels only	- Player cannot tunnel draw or dash below $y=0$ - <code>SwipeInputManager</code> disables input if <code>location != AboveGround</code>

Tunnel Drawing System

User Story	Acceptance Criteria
As a player, I want to draw a curved tunnel using swipe	- Tunnel always starts at $y=0$ - Control point determined by downward drag - <code>LineRenderer</code> shows preview in real-time
As a system, I want to clamp tunnel drawing to screen bounds	- Dragged tunnel never exits screen edges vertically or horizontally
As a designer, I want the tunnel to respect a minimum curve	- Horizontal-only or near-flat curves are automatically rejected or curved downward

Tunnel Navigation

User Story	Acceptance Criteria
As a player, I want to smoothly travel along the tunnel I drew	- Movement interpolates over path using speed factor - On exit, player transitions to hover state above ground

User Story	Acceptance Criteria
As a developer, I want to update the player context based on position during travel	- Context is set to Underground only after passing $y < 0$
As a designer, I want the burst to respect the depth player is coming from	- Burst height calculated from last Y before surfacing Minimum burst height = 0.6, max = 3.6

Bursting + Hovering

User Story	Acceptance Criteria
As a player, I want to burst into the air after surfacing from a tunnel	- Burst animation triggers after reaching $y = 0$ - Hover begins immediately afterward
As a system, I want to prepare next phase after hovering	- If enemies present nearby, enter Combat - If not, enter TunnelDrawing
As a designer, I want the hover visual to include spin + idle motion	- Visual object rotates once then rests with hover tween

✂ Combat (Swipe & Slice)

User Story	Acceptance Criteria
As a player, I want to swipe to attack enemies while hovering	- Input registered only if phase = Combat and location = AboveGround - Tap is ignored (requires min distance) - Swipe is clamped to radius
As a player, I want to slash in an arc or curve	- Path uses curved tween (DOPath) - TrailRenderer enabled during motion
As a system, I want to prevent dashing underground	- Final target position is clamped to $y \geq 0$
As a player, I want to feel powerful when I hit an enemy	- Enemy plays damage animation - Camera shakes - Score punch tween plays - Blood/flash particle effect triggers

Enemy System

User Story	Acceptance Criteria
As a designer, I want enemies to have countdowns before they shoot	- Countdown starts when player is visible or in combat - Countdown pauses during dashing - If countdown finishes, player takes damage
As a designer, I want enemies to have HP values	- Basic enemy dies in 1 hit - Advanced enemies require multiple slices - HP is decremented per hit, shows feedback

User Story	Acceptance Criteria
As a system, I want enemy death to trigger score feedback	- Death triggers particle, score punch, audio, and removes enemy from active combat list

Swipe Input Manager

User Story	Acceptance Criteria
As a player, I want swipe input to feel responsive and juicy	- Min distance enforced - Radius clamped - Random curve added to path - Camera shake, trail, line renderer enabled during swipe
As a developer, I want input to be ignored if not in Combat phase or above ground	- Input ignored unless: <code>Phase = Combat</code> && <code>Location = AboveGround</code>
As a designer, I want swipes to hit enemies along the path, not just at the endpoint	- Enemies are damaged via trigger collision with player during swipe motion - Collider2D handles OnTriggerEnter detection

Score + Feedback FX

User Story	Acceptance Criteria
As a player, I want to see the score increase visually when I kill	- Score text value tween from current to new - Text scale punch + rise animation - Feedback image appears with scale and fade animation
As a player, I want audio/visual feedback when I land a kill	- Sound, screen shake, trail, slash line shown

[Other Sections Placeholder]

(You can fill these later as production continues) - Art & Asset List - Level Design Flow - UI Layouts - Audio Style - Marketing & Audience - Monetization (if applicable)