**Main Game**

@startuml

title Kroy State Model

hide empty description

[\*] --> WelcomeMenu

WelcomeMenu -l-> DemoMode : No-one playing

DemoMode -r-> WelcomeMenu : Return

WelcomeMenu --> GamePlay : User begins game

Refill -do-> GamePlay

GamePlay -up-> Refill : Engine within range of station

GamePlay --> FortressDamaged : Engine fires at fortress

FortressDamaged --> GamePlay : Fortress not at capacity

FortressDamaged --> FortressDestroyed : Fortress reaches capacity

FortressDestroyed --> GamePlay : Fortresses remaining

FortressDestroyed --> GameWon : All fortresses destroyed

GamePlay --> LaunchMinigame : Patrol fires at engine

LaunchMinigame --> GamePlay: Win Minigame

LaunchMinigame --> EngineDamaged: Lose Minigame

EngineDamaged --> GamePlay : Engine health not 0

EngineDamaged --> EngineDestroyed : Engine health at 0

EngineDestroyed--> GamePlay : Engines remaining

EngineDestroyed--> GameLost : All engines destroyed

GameWon --> [\*]

GameLost --> [\*]

@enduml

**MiniGame**

@startuml

title Minigame State Diagram

hide empty description

[\*] --> PlayMinigame

state PlayMinigame {

[\*] -->PlayerShoots: Player shoots a bomb at the Enemy

PlayerShoots --> HitsAlien: Player Hits an Alien with Bomb

PlayerShoots --> MissesAlien: Player Bomb hit screen boundary

HitsAlien --> AlienDies

AlienDies --> [\*]

MissesAlien --> [\*]

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AlienShoots --> HitsPlayer: Alien Bomb Hits Player

AlienShoots --> MissesPlayer: Alien Bomb hit screen boundary

HitsPlayer --> [\*]: Player Dies

MissesPlayer --> [\*]: Player lives

}

PlayMinigame --> [\*]: Player has been hit by Bomb

PlayMinigame --> PlayerAlive: Player is still alive

PlayerAlive --> [\*]: No more Aliens left

PlayerAlive --> PlayMinigame: At least 1 more Alien left

@enduml