

ETF_MODEL+

```
feature
  in_setup:BOOLEAN
  in_game:BOOLEAN
  cursor:INTEGER assign set_cursor
  debug_mode:BOOLEAN
  row_indexes : ARRAY[STRING]
  state_name:STRING
  error:ERROR
  state_type:STRING
  state_indicate:STRING
  success_state:INTEGER
  error_state:INTEGER
  setup_array:ARRAY[SETUP]
  state_items : HASH_TABLE[STRING,INTEGER]
  ship_array:ARRAY[STARFIGHTER]
  ship:STARFIGHTER
  board : ARRAY2[STRING]
  fire_cmd : FIRE
  update : UPDATE_PROJECTILE
  update_ep : UPDATE_ENEMY_PROJECTILE
  collision:COLLISION
  score:SCORE
  --Enemy attributes
  enemy_id : INTEGER assign set_enemy_id
  enemy_table : HASH_TABLE[ENEMY,INTEGER]

  --Friendly Projectile Table
  friendly_projectile_list : HASH_TABLE[PROJECTILE,INTEGER]

  projectile_id:INTEGER assign set_projectile_id
  enemy_projectile_list : HASH_TABLE[PROJECTILE,INTEGER]

  play(row, column,n1,n2,n3,n4,n5)
    -- used when in_game state called from ETF_PLAY

  pass
    -- Pass CMD for starfighter. Will apply regen twice for sf act

  fire
    do
      -- Calls a FIRE class feature fire which fires according to weapon selected
    end

  move(row: INTEGER; column: INTEGER)
    -- Moves accordingly while checking for possible collisions

  special
    do
      -- Uses special cmd based on selection call a sf_act_display class to display accordingly.
    end

  abort
    -- game aborts

feature -- helper features

  display
    --displays the state strings

  add_enemy
    -- Natural spawn of the enemy according to the random numbers

  enemy_act
    -- Enemy action based on the turn ended variable

  apply_regeneration
    -- SF regeneration

  enemy_vision_update
    -- updates enemy vision

  make_board
    -- displays board
```

ship, ship_array:ARRAY[.]

STARFIGHTER+

```
feature -- sf_attributes
  current_health:INTEGER assign set_current_health

  total_health:INTEGER assign set_total_health

  current_energy:INTEGER assign set_current_energy

  total_energy:INTEGER assign set_total_energy

  h_regen:INTEGER assign set_h_regen

  e_regen:INTEGER assign set_e_regen

  armour:INTEGER assign set_armour

  vision:INTEGER assign set_vision

  move:INTEGER assign set_move

  move_cost:INTEGER assign set_move_cost

  projectile_damage:INTEGER assign set_projectile_damage

  projectile_cost:INTEGER assign set_projectile_cost

  choice_selected : ARRAY[TUPLE[pos:INTEGER,name:STRING]]

  location : TUPLE[row:INTEGER_32;column:INTEGER_32] assign set_location

  initial_location : TUPLE[row:INTEGER_32;column:INTEGER_32] assign

feature --features to set the variables

  set_is_destroyed(sid:BOOLEAN)

  set_initial_location(il : TUPLE[row:INTEGER_32;column:INTEGER_32])

  set_location(t:  TUPLE[row:INTEGER_32;column:INTEGER_32])

  set_old_location(t:TUPLE[row:INTEGER_32;column:INTEGER_32])

  set_current_health(ch : INTEGER)

  set_total_health(th : INTEGER)

  set_current_energy(ce : INTEGER)

  set_total_energy(te : INTEGER)

  set_armour(a : INTEGER)

  set_h_regen(hr : INTEGER)

  set_e_regen(er : INTEGER)

  set_vision(v : INTEGER)

  set_move(m : INTEGER)

  set_move_cost(mc : INTEGER)

  set_projectile_damage(pg : INTEGER)

  set_projectile_cost(pc : INTEGER)

  empty_attributes
```