**Mini-Project # 1 Space Lander - Pre-Project Questions**

***Side Effect-*** a function is said to have a **side effect** if it modifies data outside its scope

## Part 1

Which functions (if any) have side effects? What are the side effects of each of these functions? How do you implement these side effects?

What does each function return?

Write the algorithm for each of the functions:

* **get\_status():**
* **thrust(number):**
* **update\_onesecond():**
* **has\_crashed():**
* **has\_safely\_landed():**

## Part 2

Which functions (if any) have side effects? What are the side effects of each of these functions? How do you implement these side effects?

What does each function return?

Write the algorithm for each of the functions:

* **reset\_lander(a, v, f)****:**
* **human\_controller():**
* **simulate\_landing(player):** 
  + **Note:** player is a function – to use it you just call it – How?

## Part 3

Does this function have any side effects? If so, what are they?

What does this function return?

Write the algorithm for this function:

* **smart\_controller():**

## Part 4

Which functions (if any) have side effects? What are the side effects of each of these functions? How do you implement these side effects?

What does each function return?

Write the algorithm for each of the functions:

* **reset\_world(g, s, a\_l, a\_u):**
* **update\_onesecond():**
* **has\_disintegrated():**
* **simulate\_landing(player):**
* **thrust(number):**
* **smart\_controller():**

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