

Drone detection home assignment

Your task is to create a simulation of a counter-drone system, composed of a server and a sensor which exchange information between them.

Server

- Gets messages from the sensor regarding a “Found” drone, prints the drone’s name and status (“Found” is the initial status when the drone is detected).
- Tells the sensor what to do with the drone (land it or keep it on the ground) depending if the drone is in the air or on the ground. This decision is sent to the sensor.
- Prints final status of the drone (“Landed” or “Stayed on ground”) after the sensor informs the server he is done with handling the drone.
- Once the sensor shuts down (finished with all drones) should print the history of all drones and their final status as a list.

Sensor

- Reads from a file list of drones. Drones have names and are either in the air or on the ground.
- The status of the drone, once it’s found on the file, is “Found” and the server should be informed that this new drone was found.
- The server should let the sensor know what to do with the drone (land it or keep it on the ground) and perform this on the drone (you can print “Landed” or “Stayed on ground”).
- Once it’s done, the sensor lets the server know the final status of the drone “Landed” or “Stayed on ground”).
- When reading from the file please make sure you wait a few seconds between each drone you read.

Communication between sensor and server

Completely up to you. Some examples include: shared memory, TCP, HTTP, REST API or any existing messaging library.

Feel free to use what you think is best and most suitable.

With your solution please provide:

1. All code written as part of this assignment
2. Output resulted from the attached input file
3. Any other material you think is relevant