Part B: Real-Time OS

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|  | Real-time Task |
| The safety of passengers. | Hard |
| The comfortableness of passengers. | Soft |
| Energy consumption. | Soft |

Type of Task and its purpose:

Safety of Passengers [HARD REAL TIME TASK]

Passenger’s safety has to be the priority and it is unacceptable if harm come to them. Consequences of not meeting this deadline will be injury or even death to passenger.

Example: Seatbelts have to be issued to each passenger on board and be leashed to ensure passenger safety.

Comfortableness of Passenger [SOFT REAL TIME TASK]

Passenger’s comfortableness are wanted but not too crucial to affect the deadline. Consequence of not meeting this deadline will be passenger experiencing uncomfortableness.

Example: Leather seats may be preferred as it is more comfortable but cotton seat are given as an alternative.

Energy Consumption [SOFT REAL TIME TASK]

Energy consumption of car are preferably maximised but not prioritised. Consequence of not meeting this deadline will be a lower efficiency of energy output.

Example: Car energy consumption may be lower if using primarily a lithium battery but it is not a priority despite it’s greater efficiency.