

Student Project Brief: *jet lag*

What is the health condition being addressed?

Jet lag

What are the important facts about this condition and its management?

Jet lag is a physiological condition which results from alterations to the body's circadian rhythms caused by rapid long-distance trans-meridian (east–west or west–east) travel.

The condition of jet lag may last several days before the traveller is fully adjusted to the new [time zone](#); a recovery period of one day per time zone crossed is a suggested [guideline](#). Jet lag is especially an issue for airline pilots, aircraft crew, and frequent travellers

[Research has shown that jetlag symptoms can be reduced by proper management and planning](#)

What are the problems to be solved and that existing technologies do not solve?

How can we reduce jetlag for frequent business flyers.

Who are the prospective users of this technology?

- Frequent business flyers
- Pilots
- Athletes

Who are the other stakeholders?

- Airlines
- Airport
- HR departments corporates
- Athlete trainers

Are there any technological, organisational or other contextual constraints upon design?

Hardware Constraints

- We will only use off-the-shelf hardware. No new devices can be created. Existing devices can be modified if needed (e.g. by means of an SDK)

Software constraints

- We're experienced in the following technologies. Ideally, we use these technologies for the solutions:
 - o Mobile app development (iOS, Android)
 - o Web development (websites, portals, dashboards, etc)

Organisational constraints

- We're good in behaviour change applications. We've extensive experience with implementing behaviour change mechanism to keep people motivated for a long-time. Our adherence and engagement rates are very high
- No flying cars or equivalent. We're looking for solutions that are feasible to build by ourselves, since we want to go to market with these solutions. So when you pick your problems, pick them wisely. We can't build 100 functionalities in one application, it needs to be realistic and commercially viable. For example: We won't build something that takes 2 year development time and can only be sold to 200 obstetricians per year. Value for money is important: how can we create as much value with limited funds and resources?
- Somebody needs to pay for it. We don't want to rely on subsidies to fund this project. Who is willing to pay for this solution to make it sustainable?
- There are a few jetlag application out there, some more successful than others? How can we make our jetlag application better than theirs? How do we differentiate and how can we reach a lot of users in a short time period?