

Engineering Interview Case Study Descriptions

As part of your upcoming Engineering Medicine interview, please choose one of the four prompts listed below and come prepared to discuss your approach and ideas for solutions.

Prompts:

Reflex Hammer

- Problem: Reflex hammers are difficult to place in many patients, resulting in inaccuracies and inconsistencies.
- Objective: Improve consistency and reliability in triggering elbow and ankle reflexes.



Infant Fever Detection

- Problem: Increased temperature is the first sign of sickness in infants, but parents often don't detect it until other symptoms are already showing.
- Objective: Improve parents' ability to detect infant fever early on to expand the available window for treatment.



Surgeon Joint Fatigue

- Problem: Surgeons often stand for long hours during procedures, causing fatigue that has long-term effects on them and can prevent them from performing the procedure correctly.
- Objective: Reduce physical stress surgeons experience on their joints during long procedures.



Portable Heart Monitor

- Problem: Some patients require long-term heart monitoring during a period outside of the clinic. Current monitors are bulky and uncomfortable, reducing compliance and causing patients to reduce their daily activity, thus skewing the data.
- Objective: Reduce discomfort and lifestyle changes for patients that need continuous heart monitoring.

