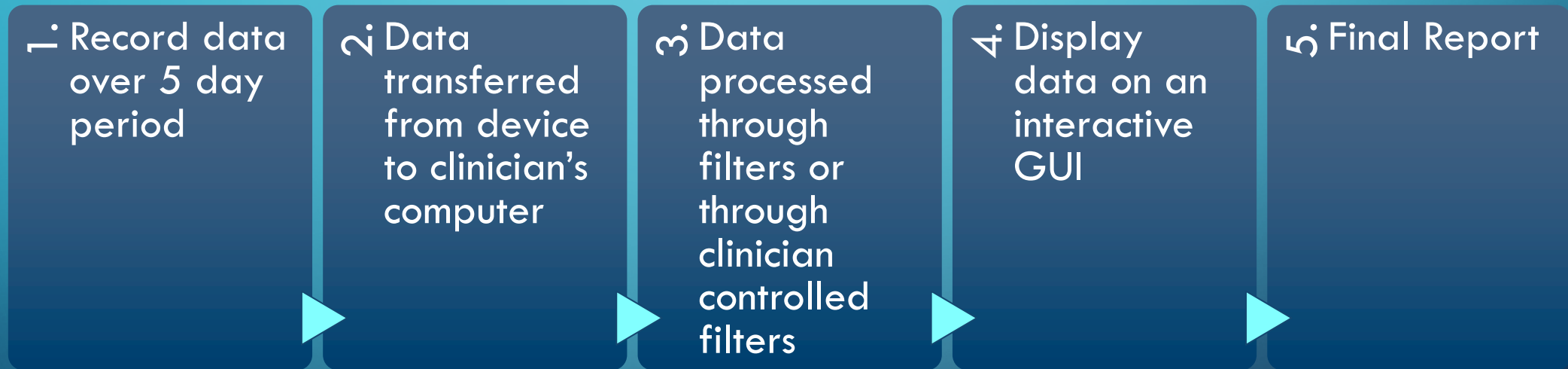# THE DREAM TEAM:
AN RLS MONITOR DESIGN PROPOSAL

ISABEL ANDERSON, MAURICIO BUILES, JAMES GRUSY, XAVIER WILLIAMS

DATA FLOW PROCESS

| 1. Record data over 5 day period | 2. Data transferred from device to clinician's computer | 3. Data processed through filters or through clinician controlled filters | 4. Display data on an interactive GUI | 5. Final Report |

TARGET DEVICE SPECIFICATIONS

Data Collection of limb acceleration

Data rendering and identification on PC

Wirelessly transmitted data

Sealed enclosure

Cleanable device
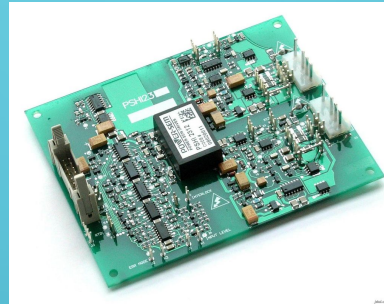
No user interface for patient
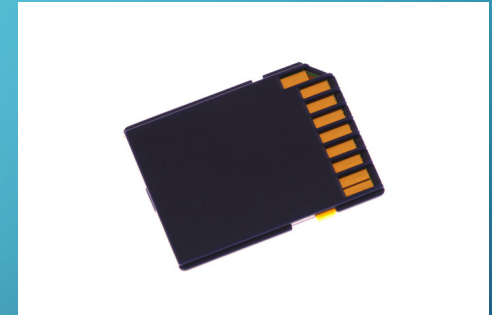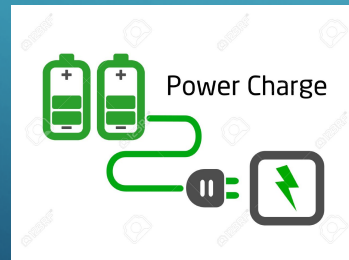
Battery life of at least 5 days

DATA ACQUISITION

Movement Detected

Picked up by accelerometer on circuit board
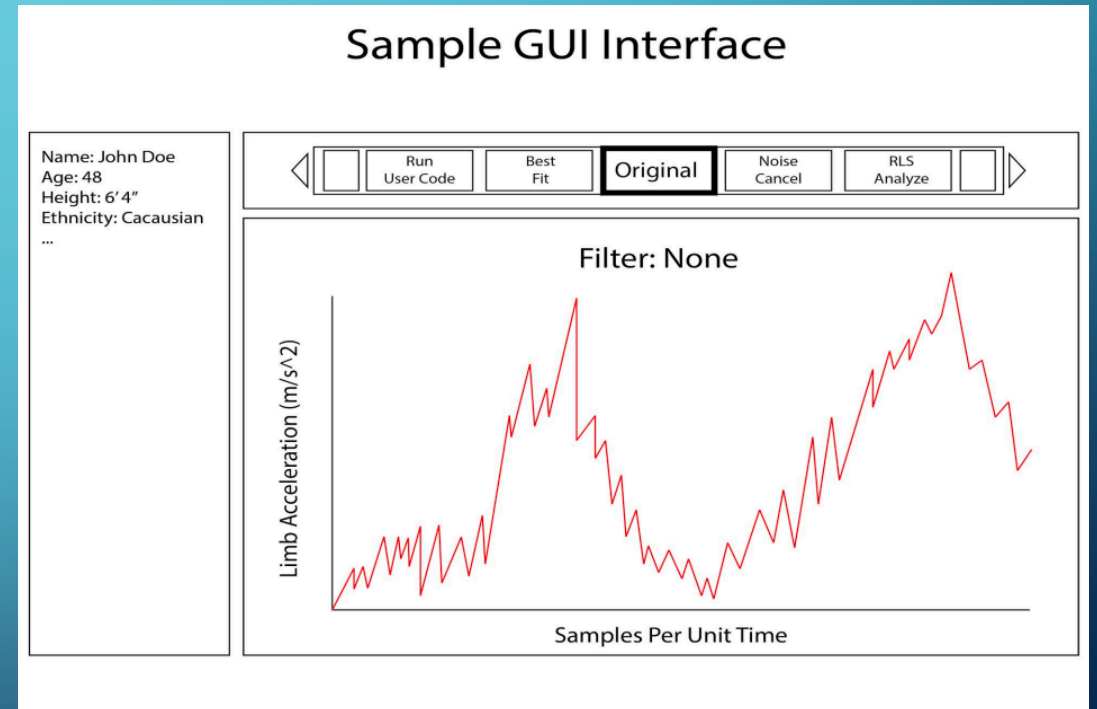
Stored in internal memory

Power Charge

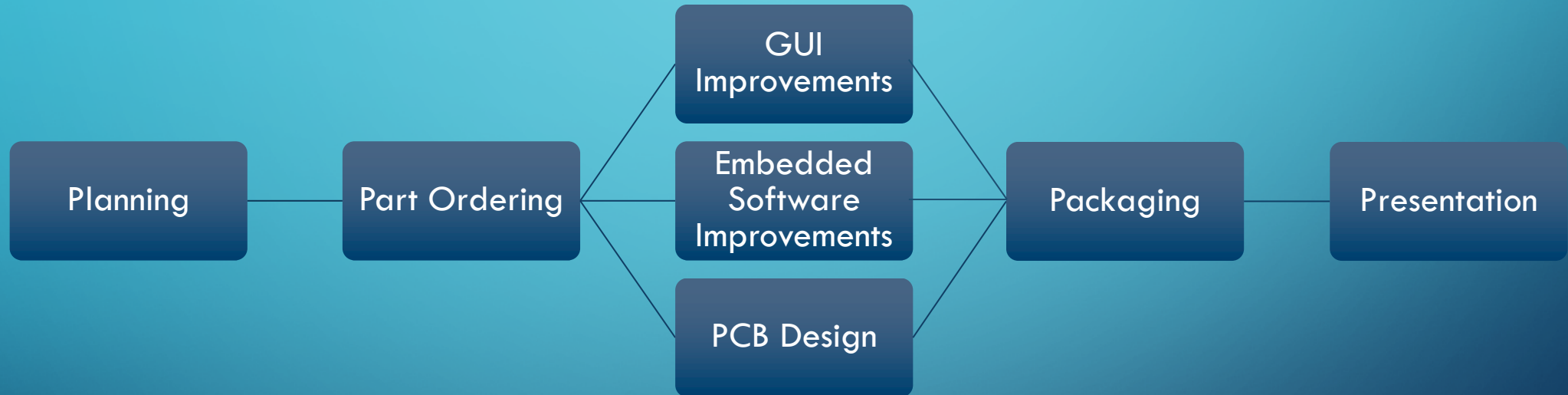Data wirelessly transmitted once charging is detected

SOFTWARE DEVELOPMENT AND INTEGRATION

- Graphical interface for clinicians to view data
- Ability to execute filters that help identify movements
- Wireless data transfer

Sample GUI Interface

Name: John Doe
Age: 48
Height: 6'4"
Ethnicity: Cacausian
...

| | Run User Code | Best Fit | Original | Noise Cancel | RLS Analyze | |

Filter: None

Limb Acceleration (m/s^2)

Samples Per Unit Time

SCHEDULE

STATUS

○ Meeting Expectations