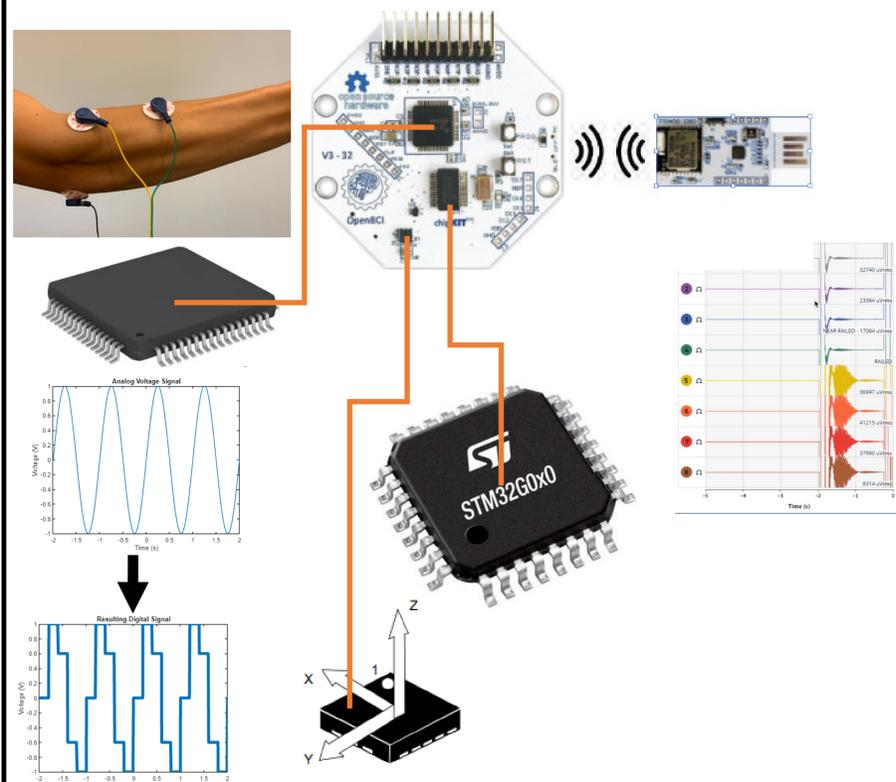


Creating a Biosignal Acquisition Platform for Medical Research

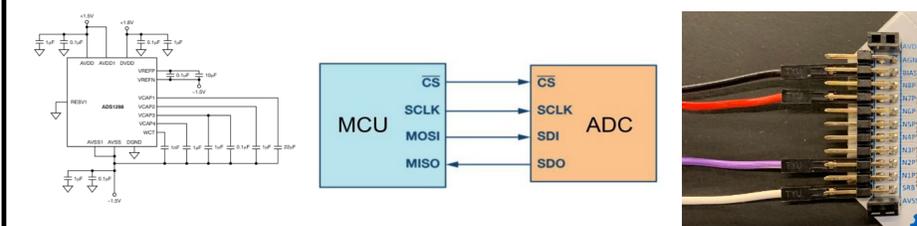
Context

- Biomedical signal devices allow us to monitor patients EEG, EMG, and ECG signals
- Cyton Board has been used in previous projects for wearable devices
- Improving the form factor problem
 - Keeping essential components
 - Optimizing space in design



Part Selection & Circuit Design

- Selecting components similar to original design
 - Parts in original board no longer available
 - New parts should have same functionality
- Connecting and programming appropriate pins
 - Supply, same power requirements
 - Communication bus creation
 - Sufficient Input/Output pins for data



PCB Design & Soldering

- Designing the PCB on KiCad by arranging and adjusting components as necessary
 - Tracks & Vias route connections
 - Clearance Rules
 - Copper Zones
- Soldering the components onto the PCB ensuring proper connections
 - Surface Mount
 - Land Grid Array

