

*This is a continuation of last year already working and only need some additional troubleshooting.

C) Software integration design: Basic communications and GUI

- 1) Ensure that basic software to communicate with (BLE) Bluetooth Low Eem data is working as well as WiFi and BLE on video camera and base station.
- 2) Ensure software is able to communicate with EEGs and sensors in real-time
- 3) Simple GUI additions (to existing software already coded by Xccepted)

already working.

Risks and benefits

The main risks in this project are:

- 1) Time line traditionally projects with hardware / software development and integration take longer than planned due to unforeseen technical issues
- 2) Technology multiple sensors, PC boards and software need to be experimented with and this technology is constantly changing.
- 3) Sensors sourcing and testing sensors which will work with infants is time consuming and requires due diligence to ensure they are compliant with infants for their usage. It is possible that something may be sourced and used early on but later found to be unacceptable and need to be exchanged for a different part.
- 4) Communication ensuring real-time communications between the 3 core components (especially with both BLE and WiFi) will require an advanced level of communication protocol to

key to success.

Budget:

There is not an exact budget for this project, however Xccepted will pay for any reasonable cost for prototyping equipment and parts. At this time it is expected that prototyping cost will not exceed 2,000.00\$ over the time of the Capstone project, however if additional funds are need they Xccepted is open to cover these costs.