Section	Comments
	Overall ● Concise report but you can add more content in the final report. Try to explain your thought process behind design decisions in each stage. Be more descriptive, discuss problems, challenges, reasons for your selections, alternatives considered, issues faced, and how you resolved them. Try to reflect your actual effort in the final report. **Section 1:** ● Better if you can add use cases that involve identified users (coach and trainee) and explain how those use cases are handled by your system. You can add more points to feature lists and categorize them based on priority. **Overall system architecture:** ● You can improve the overall system architecture by specifying the modules inside each device (For ex. ultra 96: ethernet module, processing system, programmable logic). ● Consider having a separate laptop for each dancer (one laptop for two beetles) in case we have to go online evaluations. **Activity detection algorithm** ● You can include more details on the activity detection algorithm part. Include the dancer position detection algorithm as well. Figure 2 needs a different caption. And move the figure into section 2.3. **Final form of the system:** ● Would suggest finalizing the placement of wearables after initial experiments. The placement of the wearable plays a huge role in the final outcome of the system. ● In section 2.2: 3x1.5V batteries and 4 x 1.5V batteries? ● Better to refer to the components by their name rather than using part names (beetle as Bluno Beetle, not DFR0339) ● Better to add more figures (Ex. for 2.2 how you plan to place the wearable can be explained using a figure.) ●
HW-Sensors	**Power system design:** ● How long 3V batteries would last? You need to do a theoretical analysis of the total power consumption of the system. Then calculate how long your power supply would last. ● You can measure the input current of the beetle and MPU. ● Consider adding a switch to turn off the units to save power.

	Algorithm: ● Better to be more descriptive when explaining the algorithms and libraries. Why is the Wire library selected? What library functions will you be using? What are the possible steps/states in the algorithm? How does the dance start detection algorithm work while reading the sensor data? How do you process analog signals from EMG?
HW-FPGA	Implementation: ● Start exploring how the accelerator could be connected with the processing system of the ultra96. Better to start from a simple neural network model in C/C++ and go through the whole flow of synthesizing and communicating between PL and PS. You may look at ultra96 overlays to handle low-level reads and writes to FPGA. Evaluation: ● You can use accuracy, throughput, inference latency, and power consumption to evaluate the system efficiency. You need to think about how the throughput and latency are measured. Optimizations: ● Consider more hardware optimizations such as quantization and loop tiling/unrolling/pipelining (in case you have loop-based implementation) Power management: ● Add more details on how you monitor the power consumption in ultra96. Discuss power optimization techniques (core shutdown/ peripheral shutdown/frequency scaling).
Comms-Int	Beetle Task Management - Provides an overview of task management on the beetles (sequential) but doesn't specify what tasks are being managed. What are these functions and why do you think sequential is sufficient? BLE Interface Setup - Mentions the use of AT commands for the Beetle but doesn't specify configurations. Is there any specific configuration for the Beetle or is it default? - Does your laptop really need the Bluno Link to connect to the Beetles? Comms Protocol - Protocol needs more exact details on the communication process, not just an overview. How are you going to implement your packets? Packet formats/size? - What is your data rate? Talk with your ML person and see if you can achieve it given your packet size + baud rate. Reliability Issues

	- Some proposed measures on reliability, try to improve with implementation as the protocol becomes more concrete. - How does your protocol handle missing/truncated/corrupted packets?
Comms-Ext	Inter-host Comms - Shows a good understanding of client-eval server comms. Does the evaluation server reply when the client sends data? - Some repeated text, no need to re-explain using TCP/AES in two sections. - Go into more detail on how the laptop is going to send/receive data from the Ultra96. How many laptops are you using? Intra-host Comms (U96) - Your Ultra96 would likely have multiple moving parts/programs. How are you going to coordinate / share data between them? Sync Delay - Mentions the use of NTP but do remember your beetles don't have a real-time clock. - How will you integrate the time sync with the proposed Comms protocol? Talk with Comms Int. - Give more exact details on how to calculate dancer sync delay (ex. A formula/diagram)
SW-ML	Good that you have already implemented some models and have some initial analysis. Better to include the overall flow from raw data to classified classes, before discussing individual steps. *Feature Extraction:* ● The use of word 'features' is not appropriate in section 5.1.1. The data you obtained from the sensors themselves is raw data, not the features. Features need to be derived from raw data. ● Some of the preprocessing can be done on the Arduino itself, it will prevent unwanted data transfers ● How are you going to select the best set of features? You need to analyze your moves proproperly, same as you did with the sample dataset, also do consider the communication bandwidth and transfer time. *ML Model:* ● In selecting the final model you need to consider one more factor in this project, whether you can implement it on ultra96? ● Do include some diagrams for better clarity in the final report *Model training, Validation, testing* ● Note that you have 9 moves, 8 moves provided + dance end move of your choice. ● How are you planning to train your model? Or are you using an available trained model? Anyway training is an important aspect to get better accuracy and customize the model. So you need to have more details on it.

	● No mention of classification accuracy. If you require model compression to fit it for FPGA efficiently you should show any impact on the model. What you can do is keep the model performance close to the non compressed version. Does your model only cover dance movements? How about relative positions?