Project Outline & Guidelines

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1 Teams will be labeled as

Team A
Team B
Team C (lone ranger)

2 Guidelines

The project shall consist of the implementation and adoption of:
- Communication protocols (1 Protocol is enough for Team C)
- Computation intensive process (less intensity for Team C)
- ML Algorithm implemented and coordinated between UC and FPGA (Team C can implement a simpler one on a single platform)
- Multiple sensors and actuators to be used (Team C can choose to work with either sensing or actuation

3 Reporting

At each stage of the project, It will be good to report part on its own before final report
- I expect monthly reports of utilization, timing, power consumption, challenges and remaining tasks. Reports are expected on such dates
-        October 2nd
-        October 18th (Progress reports, future tasks, and challenges
-        Nov. 6th (Individual and Group Presentation - each member shall talk about his role/task in the project
-        Nov. 20th Wrap up and preparation to close the project
-        Final report at the end of the semester
- It's recommended to use LaTex for reporting, which would be an additional experience. It's not mandatory. To facilitate this I will send a template that should make things much easier.

4   Project Ideas

Identifying objects using camera as part of a bigger system
Systems may include robotics/drones/health/etc.
Identification of different types of items and optimizing/replacing FPGA implementation based on each of those.
Example for that is having a high and low quality versions of identification algorithm
Another example is to identify two objects of different nature that requires different algorithms (like voice/photo , heart pulse/photo tracking)