

**Milestone 3 – Team and Project Commitment/Contract**

In this document, you are committing to your group and your project. No changes will be allowed to your group membership or overall project idea after 10/11/19.

The only exception will be those who drop the class mid-semester. Students who do drop the class have a responsibility to be up front and honest with the other members of their group and let them know as soon as possible if they are considering dropping the class. The remaining members of the group will be forced to continue the project with fewer members.

Overview:

- Team Formed (2-4 people)
- 2+ page write-up of Project Idea
- Submitted to Gradescope as a PDF before 11:59 on 10/11/19
- This is a group project. Only a single document per group.

Submission to Gradescope **MUST INCLUDE THE FOLLOWING:**

- Names, NetId's and Email address of ALL team members
- Name of your project
- Abstract of your project (HARD LIMIT of 100 words or LESS!!!)
- Detailed Project Ideas
  - 5 Required Sections
    1. Overall Description of Project Idea
    2. Initial Project Design stating how Multiple Arduinos will be used
    3. Expected Plan for Use and Communication between the multiple Arduinos
    4. Initial Project Design stating Expected Inputs/Outputs
    5. Description of the original work being attempted by your project.
  - No limit on size of each section
  - Each section **MUST** be at least a paragraph long (multiple paragraphs preferred)
- **REQUIRED** Supporting Materials
  - Proposed Timeline of Development given in a week-by-week format
    - Timeline needs to include Design Presentation on Monday 11/25/19
    - Timeline needs to include Project Demonstration on Monday 12/2/19
  - List of Materials Expected to be Needed
  - List of References
  - Inclusion of one or more diagrams to help identify your project's hardware is **REQUIRED** (diagrams are best guesses at this point in time)
  - Inclusion of one or more code sketches to help identify your project's software is **REQUIRED** (code sketches are best guesses and can be in "pseudo-code")

Hint: write your abstract **AFTER** you write the 3 sections for your Detail Project Ideas.

**When submitting to Gradescope, this will be submitted as a Group Project. You will need to specify/select ALL MEMBERS of your group at time of submission. It will be the responsibility of the group to ensure that this is properly done.**



**Original Requirements for the Project**

Must work in groups of at least 2 people, but no more than 4 people. Group project should utilize number people x requirements below (if group of 3 people, then need to use 3 Arduinos and a total of 6 different external devices)

Make use of at least one Arduino (or similar) microcontroller per person in the group.

Utilize at least two different external devices (16x2 display, LEDs, pushbuttons, touch sensors, etc.) per person in the group.

Utilize some communication mechanism (Ethernet, Bluetooth, serial, etc.)

Involve some original work - You can find lots of tutorials, how to's, step by step directions for lots of projects. I am fine with you starting with these but some original work **MUST** be included. If your idea involves original work, but none is implemented, the project will not receive a very good score.

For example, building a 4x4x4 LED cube <http://www.instructables.com/id/The-4x4x4-LED-cube-Arduino/> is not a great project by itself. But incorporating a bluetooth to a computer/phone/tablet to allow control of the LED cube is better or using 4x4x4 led cube in a game is another idea.