

As announced on February 7th 2021 the campus COVID-19 operational posture is now “High Risk”

<https://www.umass.edu/coronavirus/operationalposture#high>.

Therefore, there is no access to SDP lab or M5 while we remain in this state. SDP21 **will proceed in a remote format** over these next two weeks.

Topics covered in this announcement portion of today’s lecture:

- Revised calendar
- Remote Logistics (purchases, parts & equipment, soldering)
- Working remotely as a team
- Clarification of the FPR embedded firmware/software policy will be discussed at the end of lecture

For immediate specific logistical concerns, post a message to your team[#]-and-course-coordinator channel on Slack.

Additional questions -- ask after lecture

# Revised calendar

February 2021						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1 Classes Begin  Lecture 7 (CDR prep)	2	3	4	5	6
7	8 Lecture 8 (Design of Experiments)	9	10	11	12	13
14	15 Check-In #4	16 Check-In #4	17 Check-In #4	18 Check-In #4	19	20
21	22 Lecture 9 (Alumni)	23	24 Wellbeing Wednesday	25	26	27
28						

March 2021						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1 Wed Class Schedule	2	3	4	5	6
7	8 Lecture 10 (SDP Report) Check-In #5 PCB check-in	9 Check-In #5 PCB check-in	10 Check-In #5 PCB check-in	11 Check-In #5 PCB check-in	12	13
14	15 Lecture 11 (CDR)	16	17	18	19 Websites due	20
21	22	23	24	25	26	27
28	29 CDR	30 CDR	31 CDR			

# Revised calendar

April 2021						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
4	5 Lecture 12 (FPR) Check-In #6 w/ PCBA demo	6 Check-In #6 w/ PCBA demo	7 Check-In #6 w/ PCBA demo	8 Check-In #6 w/ PCBA demo	9 Draft SDP report due	10
11	12	13	14 Wellbeing Wednesday	15	16	17
18	19 FPR	20 FPR	21 FPR	22 FPR	23 FPR	24
25	26	27	28	29	30 Demo Day	1

## Logistics of switching to fully remote until at least February 21st 2021

- **Purchasing:** It *may be possible* for orders to be shipped directly to your address. @Keith Shimeld on your team's Slack purchasing channel.
- **Curbside pick-up:** A pick-up/drop-off box outside M5 will facilitate **no-contact curbside pick-up** of purchases, parts, equipment, so on.
- **Soldering:**
  - Discuss with Shira via Slack, Zoom to figure out exactly what you need
  - Shira will assist you with creating the assemblies that you need soldered now in order to continue working
  - Drop off parts to be assembled, pick up final assembly after notification from Shira from the pick-up/drop-off box

# Working remotely as a team

- FPR has not been delayed. Continue working.
- Think creatively about remote work. Some ideas:
  - Order multiple copies of modules so each team member can work on the same development environment and independently test and debug. If your team needs more funding than your original \$500 budget, make a formal request to the teamxy-and-course-coordinator channel
  - If only one system copy is feasible, considering consolidating to one location.
    - Team members without the hardware are 100% capable of contributing to the work:
      - Writing code
      - Doing research. Analyzing data. Designing tests.
      - Designing the schematic and PCBA
      - Working via Zoom to assist the team member with the hardware (get a webcam or use your phone, be creative with camera angle)
  - Stuck? Ask for help: Team members, faculty advisor, Dr. Malloch, course coordinators

Additional questions?

Stick around after lecture, or post to Slack after.

# Hardware Requirement [From Lecture 2, slide 20]

- Prototype rapidly for MDR.
- Use solderless breadboards, development boards & breakout boards for MDR.
- Development & breakout boards not allowed at FPR and demo days.
  - including Arduino, mbed and no-operating-system 8-bit and 32-bit dev boards.
  - instead, migrate your MDR design onto your custom PCB and migrate your Arduino code to ANSI C code.

# Clarification of the FPR embedded firmware/software policy

If your team has an exception request post it to your team-xy-and-course-coordinator Slack channel

- Migrate your “Arduino” code to C
  - Don’t use “Arduino” functions, for example: `digitalWrite()`, `analogWrite()`, `pinMode()`
  - You can include libraries which you explicitly invoke in your code
- You can use the bootloader still if you find it convenient
- You can use the Arduino IDE if you find it convenient, but consider it has very few features

All your code will have to be on GitHub (\*if for some reason your code must remain private, you can make a private repository and find a way to share it only with team members, advisor, evaluators, and course coordinators)