Senior Design Team may 23-45: MicroCART Team

Week 9 Status Report (10/14-10/20)

Members:

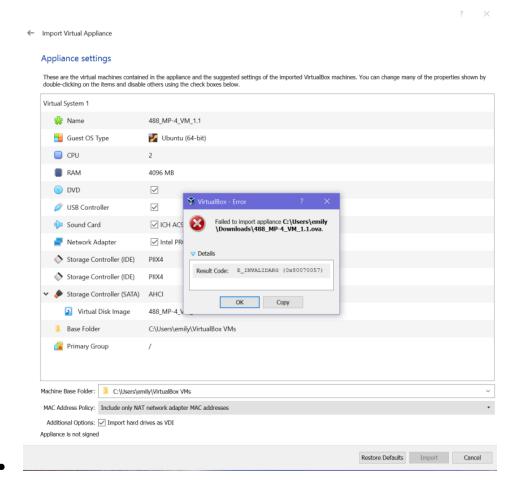
- Cole Hunt
- Connor Ryan
- Emily Anderson
- Gautham Ajith
- Grant Giansanti
- Tyler Johnson
- Austin Beinder

Weekly Progress Summary

- Started on PCB design (<u>high-level diagram</u>)
- Basic operation testing on Pi Zero W
- Generated plan to run existing software on an operating system

Pending Issues

- Waiting to get a desktop
- Raspberry Pi Zero only has two PWM channels
- IMU situation: breakout boards have different pinouts.
 - Jumper connections?
 - o Make our own breakout boards?
 - Only design for one IMU?
- Do we need the MP-4 VM image or can we use a base Ubuntu image and install the drivers ourselves.
- Emily running into issue in screenshot below
 - o Has this been seen before?
 - Any known solutions?
 - o Can we manually install lab instead of using image?



Individual Contributions

Team Member	Contributions	Hours	Total Hours
Austin Beinder	Flight training: 5 battery cyclesDesign DocDrone Simulation Webinar	4	24
Cole Hunt	 Flight training: 4 battery cycles Look through FreeRTOS Source Research ways to run FreeRTOS on Pi Zero Look through CrazyFlie Firmware Source 	3	15
Connor Ryan	Flight training: 4 battery cyclesPCB Design	4	19
Emily Anderson	Flight training: 1 battery cycles	4	9

	 Working on getting lab imported, blocked by screenshot in pending issues Catching up 		
Gautham Ajith	Flight training: 4 battery cyclesNot feeling well	0	14
Grant Giansanti	Flight training: 2 battery cyclesRead into software PWMBare Metal OS	3	17
Tyler Johnson	 Flight training: 7 battery cycles Worked on design document Helped with PCB design 	4	19

Comments:

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Next Week Plans

- Finish PCB Design
- Test performance of software PWN pins