



# HASP Monthly Status Report

**Report Month:** May 2023  
**Submitted by:** Wookwon Lee  
**Submit Date:** 05/26/2023  
**Institution:** Gannon University  
**Payload Number:** 2023-12  
**Payload Name:** UHF-Band Video-Streaming Payload

## I) Activities During Previous Month:

- a) Verified that, for the ground receiver, Lenovo M90n recognizes the hardware (DTA2131) on its M2 slot through a PCI-to-M2 converter.

Thanks to Dr. Nick Conklin, co-faculty advisor, for all progress below for the payload. All components of the payload are now running off two ATX power supplies as described in the PSIP:

- b) Video Source (Raspberry Pi) --- Two Raspberry Pis for video streaming have been configured, one Raspberry Pi 3 with one webcam, and a Raspberry Pi 4 with 3 webcams. The Raspberry Pi 3 also handles all uplink commands properly.
- c) I5 CPU with RF transmitter, DTA2115B – running properly to deliver videos from Raspberry Pis to RF receiver, DTA2131, with auto start for video streaming at boot-up running properly -- i5 computer is configured to allow automatic log onto Windows and run a batch file to execute video streaming command.

## II) Issues Encountered:

- N/A

## III) Milestones Achieved:

- Completed PSIP and security clearance Excel sheet.

## IV) Plans for Coming Month:

- 1) Integrating a front-end power amplifier and a TTL to RS 232 converter to communicate with the HASP via the EDAC on our payload plate
- 2) Constructing the payload with all components
- 3) Construct the receiver (Yagi antenna + DTA2131 + Lenovo M90n portable computer + portable monitor)

## V) Other Comments or Questions for HASP Management:

- None at the moment.

## VI) Team Composition and Organization:

Fill in text as necessary plus update table below.

<b>Name <sup>(i)</sup></b>	<b>Start Date</b>	<b>End Date</b>	<b>Role</b>	<b>Student Status</b>	<b>Race<sup>(ii)</sup></b>	<b>Ethnicity<sup>(iii)</sup></b>	<b>Gender <sup>(i)</sup></b>	<b>Disabled</b>
Wookwon Lee	1/9/23	Present	Faculty Advisor	Faculty	Asian	Non-Hispanic	Male	No
Nicholas Conklin	1/9/23	Present	Faculty Co-Advisor	Faculty	White	Non-Hispanic	Male	No
Andrew Snowdy	1/9/23	Present	Project Lead	Undergraduate	White	Non-Hispanic	Male	No
Kalkidan Lakew	1/9/23	Present	Video operation & integration	Undergraduate	Black	Non-Hispanic	Female	No
Hannah Jacobs	1/9/23	Present	UHF front-end electronics	Undergraduate	White	Non-Hispanic	Female	No
Zoey McClain	1/9/23	Present	Video operation & integration	Undergraduate	White	Non-Hispanic	Female	No
Sara Jones	1/9/23	Present	UHF modulator operation & testing	Undergraduate	White	Non-Hispanic	Female	No
John (Jack) White	1/9/23	Present	i5 CPU integration	Undergraduate	White	Non-Hispanic	Male	No
Zachary Dickinson	2/8/23	Present	R-Pi & Thermal control	Undergraduate	White	Non-Hispanic	Male	No
Damien Chu	3/20/23	Present	R-Pi & Thermal control	Undergraduate	Asian	Non-Hispanic	Male	No

- i. Current NASA guidance requires information from up to date legal documentation (for instance, Driver's License, Passport)
- ii. Accepted options include African-American/Black, Asian, American Indian/Alaskan Native, Native Hawaiian, Pacific Islander, White
- iii. Accepted options are Hispanic on Non-Hispanic.