

Nakuja Project

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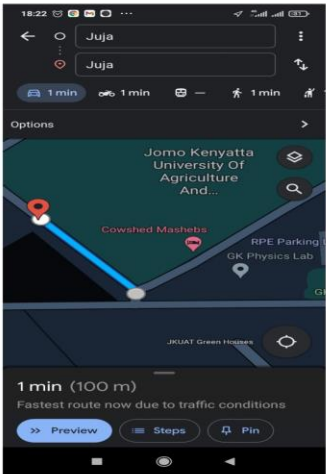
Week 3 Progress report

Task completed this week

- ▶ [#30] Research on camera
 - ESP32 CAM test
 - FPV Camera test
- ▶ [#1] ESP Wi-Fi data transmission test
- ▶ [#2] Research on ground station

#30 Research on camera

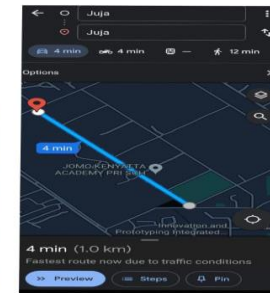
- ▶ Based on video results for the ESP32 CAM and FPV videos, FPV proved to be a good suit for flight video recording
- ▶ Good resolution video was able to be transmitted to distances of up to 1km



100m



1km



#1 Research on data transmission

- ▶ I was able to configure two ESPs to communicate over Wi-Fi and send data
- ▶ The range however was short - Researching on ways to increase the Wi-Fi Range

[#2] Research on ground station

- ▶ Data received at the ESP32 at the base station was fed to raspberry Pi through the serial port
- ▶ Stored as CSV file
- ▶ Graphing, Storage and post-flight data analysis

Tasks this week

- ▶ Wi-Fi antenna design
- ▶ Improve Kalman filter performance
- ▶ FPV video storage
- ▶ Flight Logic improvement