
TARGETMAV
Barbarian’s Team

OUR TEAM

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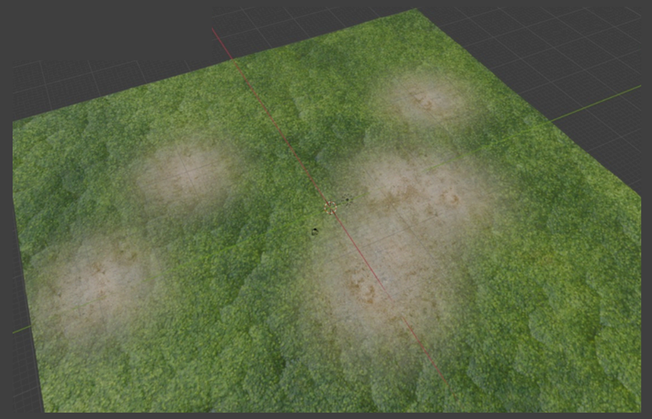
CHALLENGE

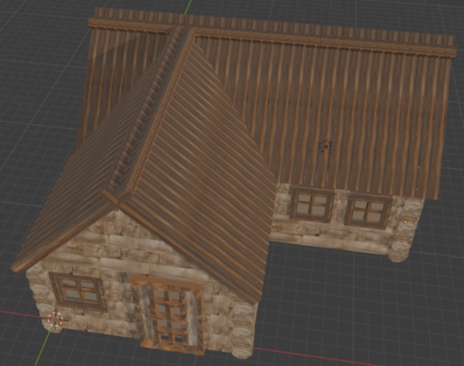
Find a person in a 10,000 m^2 open field with a textual description of the person and its whereabouts with a MAV autonomously, and land in a 2 meter radius near the person

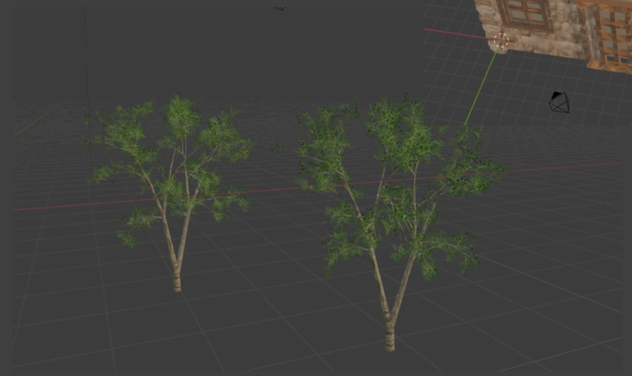
OUR SOLUTION

Using a MAV of three drones with a multi-agent system patrols the designated area, analyzing people and matching them to a given textual description using an LLM; when the best match is found, the drone alerts the others, halts their movement, and the closest drone lands within a 2 meter radius of the person.

3D MODELS







COMPONENTS INVOLVED

LandingController:

Handles Safe Landing

DroneAgent:

Flight Controller

PersonDescriptor:

Sends Description of people seen (Tags and Characteristics)

SearchCoordinator:

Manages Mission State, Decisions, Callbacks and Winner

OllamaLLMComparer:

Communication between MAS and LLM

DroneProximitySensor:

Proximity Trigger

PROTOTYPE DEMO

CONCLUSION

THANK YOU!