



TANDEM

RANGER

TEAM 14

Tandem Ranger, designed for range, functions as a dedicated mission support platform such as aerial reconnaissance yet will be capable of autonomous docking and undocking with Team 13's Tandem Scout (parasite-ship). It will be configured to transport a payload, such as a quadcopter, and equipped with sensors tailored to specific use cases. Upon reaching its destination, the Ranger offers two distinct operational modes. If the terrain permits, it may gently land and deploy the quadcopter, conserving battery power. Alternatively, the Ranger may assume a higher vantage point, circling above the designated area to provide an extended view of the surrounding area. Where continuous surveillance is required, the Ranger may operate autonomously, scanning the environment to relay crucial data to its operators.

Integration with Team 13

- Autonomous Vision System
- Tandem Travel Latching Mechanism
- Improved Flight Range



Kyle Borrer
– Mechanical –

Cole Rettstatt
– Electrical –

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– Mechanical –

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– Mechatronics –