Output Port	Port Direction	Type	Description
aircraft_state	External Input	message_aircraft_state_t	Input of the current position, angle, and velocity of the helicopter
cancel_hover	Internal Couple	bool	Signals to cancel current hover sequence
control_yielded	External Output	bool	Signals that the pilot has control
fcc_command_hover	External Output	message_fcc_command_t	Outputs a command to the FCC to hover
fcc_command_velocity	External Output	message_fcc_command_t	Outputs a command to the FCC to change the velocity
hover_criteria_met	Internal Couple	bool	Signals to other models that the aircraft is hovering
land	Internal Couple	bool	Signals the landing sequence
land_requested	External Output	bool	Outputs a command to the FCC to start the landing process
landing_acheived	External Input	bool	Input that the landing sequence has been completed
lp_criteria_met	Internal Couple	message_mavlink_mission_item_t	Signals the the landing point criteria has been met
lp_expired	External Output	message_mavlink_mission_item_t	Outputs that the lp has expired
lp_new	Internal Couple	message_mavlink_mission_item_t	Signals that the supervisor has received a new lp
lp_recv	External Input	message_mavlink_mission_item_t	Input of a new landing point
mission_complete	External Output	bool	Outputs that the mission is complete
notify_pilot	External Output	bool	Outputs to the pilot that they are required to take over
pilot_handover	Internal Couple	message_mavlink_mission_item_t	Signals that the supervisor is giving control to the pilot
pilot_takeover	External Input	bool	Input of the pilot forcibly taking control of the helicopter
plp_ach	External Input	message_mavlink_mission_item_t	Input of the helicopter achieving the planned landing point
request_reposition	Internal Couple	message_mavlink_mission_item_t	Signals to the other models to reposition the helicopter
stabilize	Internal Couple	message_hover_criteria_t	Signal to start the stabilize sequence
start_lze_scan	External Output	bool	Output to the perception control system to scan the landing zone

Message Type	Brief	Variables	Data type	Description
message_aircraft_state_t	Used to send messages involving the current state of the aircraft.	lat	double	Aircraft's latitude (degrees)
		lon	double	Aircraft's longitude (degrees)
		alt_MSL	float	Aircraft's Altitude (feet)
		hdg_Deg	float	Aircraft's heading (degrees)
		vel_Kts	double	Aircraft's velocity (knots)
message_fcc_command_t	Used to send messages to command the FCC.	param1	float	Generic param must refer to MAV_CMD before using
		param2	float	Generic param must refer to MAV_CMD before using
		param3	float	Generic param must refer to MAV_CMD before using
		param4	float	Generic param must refer to MAV_CMD before using
		x	int32_t	x position in meters * 1e4
		y	int32_t	y position in meters * 1e4
		z	float	Altitude in meters depending on the frame
		seq	uint16_t	Waypoint ID
		command	uint16_t	Action to occur for the given waypoint
		target_system	uint8_t	ID of the system to target
		target_component	uint8_t	ID of the component to target
		frame	uint8_t	The coordinate system of the waypoint
		current	uint8_t	
		autocontinue	uint8_t	After reaching the waypoint automatically continue
		mission_type	uint8_t	The type of mission
message_hover_criteria_t	Used to send message involving the desired hovering criteria.	desiredLat	double	Aircraft's desired latitude (degrees)
		desiredLon	double	Aircraft's desired longitude (degrees)
		desiredAltMSL	float	Aircraft's desired Altitude (feet)
		desiredHdgDeg	float	Aircraft's desired heading (degrees)
		horDistTolFt	double	Aircraft's horizontal tolerence to meet criteria (feet)
		vertDistTolFt	double	Aircraft's vertical tolerence to meet criteria (feet)
		velTolKts	double	Aircraft's velocity tolerence to meet criteria (knots)
		hdgToleranceDeg	double	Aircraft's heading tolerence to meet criteria (degree)
		timeTol	double	The time the aircraft must hover for before stating it is hovering (seconds)
		timeCritFirstMet	double	System time that the aircraft came to a hover
		hoverCompleted	double	Flag stating that the hover has completed
		manCtrlRequiredAfterCritMet	int	Flag to display manual control is required
message_mavlink_mission_item_t	Used to send landing point data.	id	int	ID of the landing point
		lat	double	Latitude of the landing point
		lon	double	Longitude of the landing point
		alt	double	Altitude of the landing point