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Embedded Systems Milestone 2 (revised)

Important Notes

The GUI and how to install/use it

https://github.com/kvnmlr/simulink-advanced-visualization/releases to download our GUI (Created using Unity)

We decided to use a GUI built in unity, because it made it significantly easier to observe the game and the sending of data using TCP Blocks did not impact performance significantly.

The GUI has to be started before starting the simulation (using `model.slx`)

Our Submission Scenarios

All scenarios can be observed in the first $t = 120s$ of the default configuration!

Instead of running the simulation, you can also look at this screen capture https://youtu.be/DEM3sYoaW
Interresting events that occur during this simulation:

- 3.5s collector senses scout with proximity sensor and pushes enough to lead scout out of bounds (9s)
- 50s collector attacks opponent scout again, afterwards opponent collector, but stops attacks because internal coordinates get close to out of bounds
- 68s collector tries to attack collector, but loses vision
- 72s collector tries to attack collector, but loses vision
- 77s collector pushes collector out of bounds, but due to his estimated position drives out of bounds himself
- 97s scout senses good light position, but estimated position is at different location, sets destination there
- 100s updates arrives just in time for the scout to set a perfect location for the real gathering point
- 102s updates position again
- 106s updates position again
- 110s collector arrives at gathering position, but light already passed
- 111s collector ignores opponent in front of him because last light update is fairly new, prioritizes gathering light

To play indefinatly just increase the t value in simulink to whatever you like.