

Arduino

RPi

Start

[Waits for initialize command from RPi of predetermined form.

Continuously regulates motor speeds @ values currently holding @ unknown rate

Reports speeds to RPi w/ time stamps. at rate specified @ start command.

start.

[Opens serial and sends command string

Sends commands to Arduino as fast or slow as it wants

thread dedicated to catching these messages and running dead reckoning @ each update.

At rate it sends commands to Arduino, updates its desired motor speeds: abs \rightarrow Local frame.