Reading 5 - Bayesian Inference for HRI

Due: start of class on Wednesday 2/22

For Reading 5 we will take a short break from human-subjects research methodology and go into a topics area: Bayesian Inference. These readings will require a bit more technical background than some of the previous readings - if you have never been introduced to probability theory or Bayesian methods, these might be a bit harder to follow. If this is the case for you, try to get a general sense of the paper and we will go over Bayesian methods from the ground up in class. As with <u>reading 4</u>, a forum response is not required, but the forum below is available if you'd like to discuss the readings outside of class time.

- Kaupp, Tobias, Alexei Makarenko, and Hugh Durrant-Whyte. "<u>Human-robot</u> communication for collaborative decision making—A probabilistic approach." Robotics and Autonomous Systems 58.5 (2010): 444-456.
- Tellex, Stefanie, et al. "Approaching the symbol grounding problem with probabilistic graphical models." *AI magazine* 32.4 (2011): 64-76.
- Yang, Hee-Deok, A-Yeon Park, and Seong-Whan Lee. "Gesture spotting and recognition for human-robot interaction." *IEEE Transactions on Robotics* 23.2 (2007): 256-270.