# Software Chronological Completness Requirements

1. (2.1) Sensor Topics and Sensor Transforms (Estimated Time: 3 weeks) (**Done)**
2. (2.2) Map of the world and AMCL. (Estimated Time: 1 week) **(Lili & Eric)**
3. Navigation stack completion. (Estimated Time: 2 weeks) **(Lili & Eric)**
4. Xbox Controller for Robot's Base (Remote control override) (Estimated Time: 2 weeks) **(Justin)**
5. Obstacle Detection and Avoidance (If not done in ROS) (Estimated Time 1wk) **(Done)**
6. Arm controllers (Estimated Time: 1 week) **(Shivan)**
7. Speech Recognition (Estimated Time: 3 weeks) **(Paul Bucci)**
8. Speech Synthesis (ET: 1 wk) (Done) **(Paul Bucci)**
9. Facial Recognition (ET: 2 wk) **(Nathan Chow)**
10. Gesture Recognition (ET: 2wk) **(Lewis Cooper)**
11. Real-time Object Classification (ET: 3wk) **(Devon Ash)**
12. Person Recognition and Tracking (ET: 3wk)
13. Scene Recognition (ET: 3wk) **(Ryan Cua)**
14. Natural Language Processing (ET: 4wk) **(Paul)**
15. Pan/Tilt Head Controller(ET: 1 wk)
16. Emergency Stop Button (ET: 3 wk)
17. Onboard Visual Interface(ET: 5wk)
18. Android Mobile Base Controllers(ET: 6wk)

## Graphical Representation of Software Project Paralellization

Here is an image I drew with GIMP (lack of knowledge of where to find software for this, if anyone knows please tell me).

The blue box mean they can be started any time but may be reliant on completion of hardware.
The red box means it must wait until everything else is done before it can be started.
The arrows point of the progression the projects must take. For example, 4 can't be started until 3 is completed. And 14 can't be started unless 7 and 8 are also completed before.

Once we have the first project done, we can start right away with projects 7,8, 2, 9, 6, and 15. The maximum amount of people we require working on this project is approximately 8. Three testers and 5 developers since the frontier max is about 5.