Progress report 2

Summary

The project is running good, and we are ahead of time plan on several tasks. We can already get the pendulum to balance, and even swing up to inverted mode, but it can be done better.

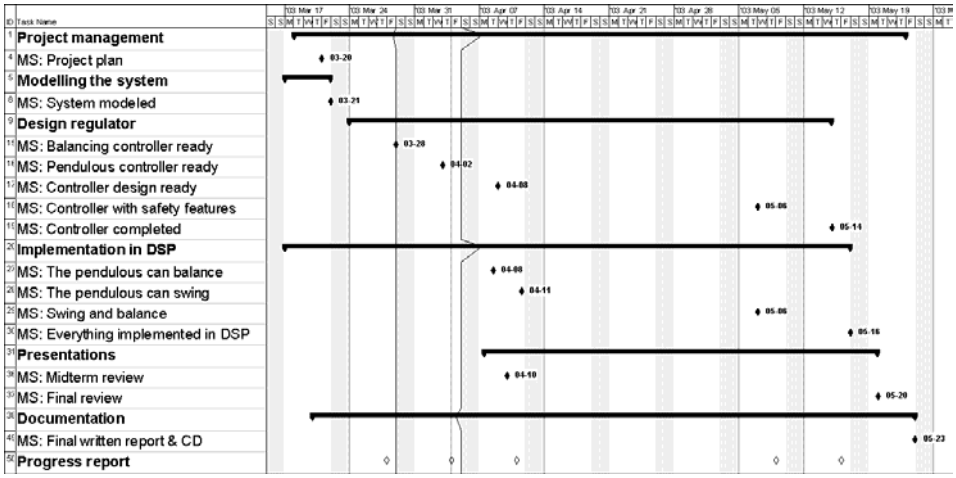
Events since previous report

- Milestone passed: We have a controller design for the swinging mode.
- Milestone passed: The LQG controller is implemented in the DSP and it can balance the pendulum.
- The pendulum can swing up to inverted mode but, sometimes it misses.

What happens next

- Design easier PID-based controller.
- Improvements on the swing.
- Better integration between swinging and balancing regulator.

Current time scale



Obstacles and possibilities

We have trouble getting a good working PID-controller. It works fine in the simulation but really bad on the real system. We have got some consultant help with this which gave us some clues to work on.

Other

We are now working in a little different way from what the time plan says. Some tasks were much easier than we first thought, especially the implementation of the controller in the DSP. This means that we are ahead of plan, so we are now working on improvements and different controller designs in parallel with more future implementation tasks.