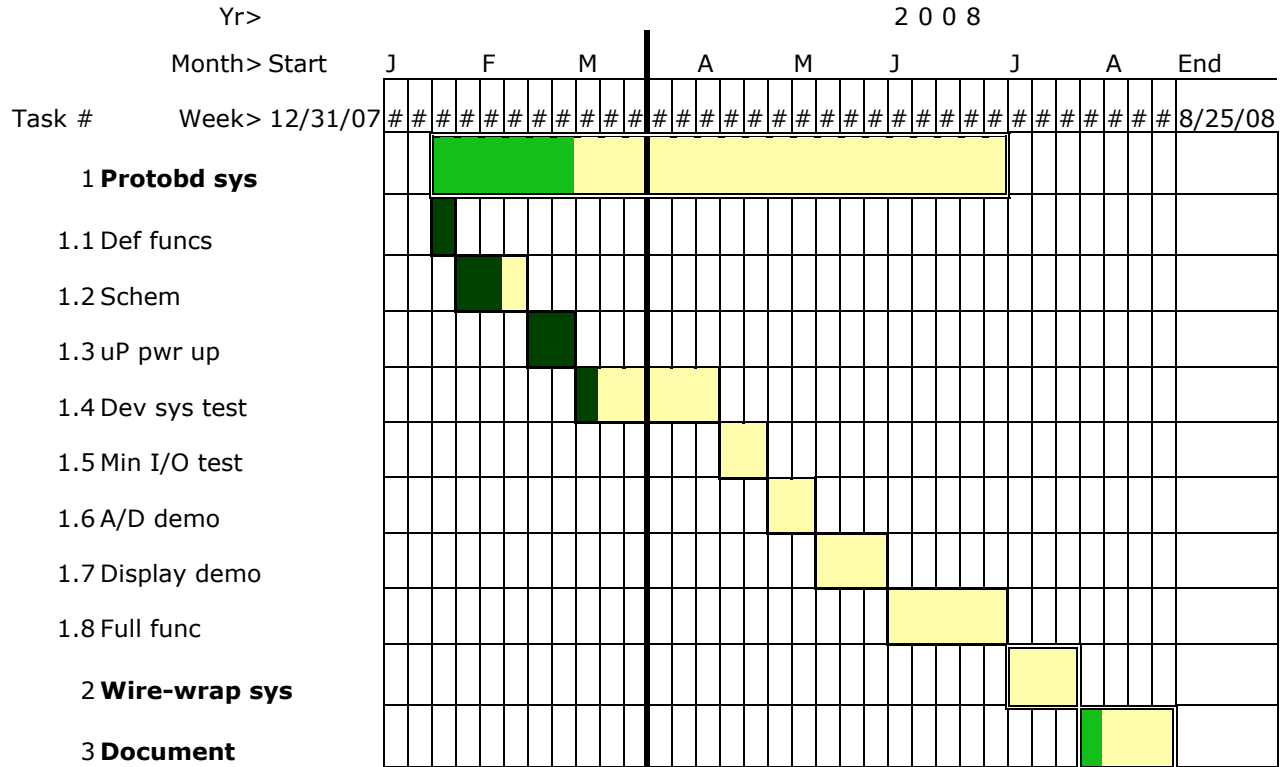


\$20 Oscilloscope Project Gantt Chart



Task definitions: (deliverables in parentheses)

1. Protobd sys: Construction of (\$20 oscilloscope prototype on protoboard)
- 1.1 Def funcs: Define functions \$20 oscilloscope will have, (specs list)
- 1.2 Schem: Draw (schematic) of complete \$20 oscilloscope circuit
- 1.3 uP pwr up: Demonstrate functionality of microcontroller by monitoring clock signal, (snapshot of clock-signal waveform using scope in lab)
- 1.4 Dev sys test: Bring up development system and verify its operation, (demo: download simple program to exercise I/O pin; hard copy of demo code)
- 1.5 Min I/O test: Download minimal program to microcontroller to operate simple I/O signal, (snapshot of I/O signal waveform using scope in lab)
- 1.6 A/D demo: Demonstrate functionality of A/D on microcontroller by outputting binary value from A/D reading of constant voltage, (live demo with LED on microcontroller output [reading out value sequentially] and tap of potentiometer acting as input voltage source)
- 1.7 Display demo: Demonstrate ability to produce graphics on LCD display driven by microcontroller, (display circle and square on LCD display, driven by microcontroller)
- 1.8 Full func: Demonstrate all functions from specs, (live demo using function generator signals as inputs)
2. Wire wrap system: Fully system implemented in wire wrap, (same demo as 1.8)
3. Document: All project documentation, (report, budget, schematic, user's manual)