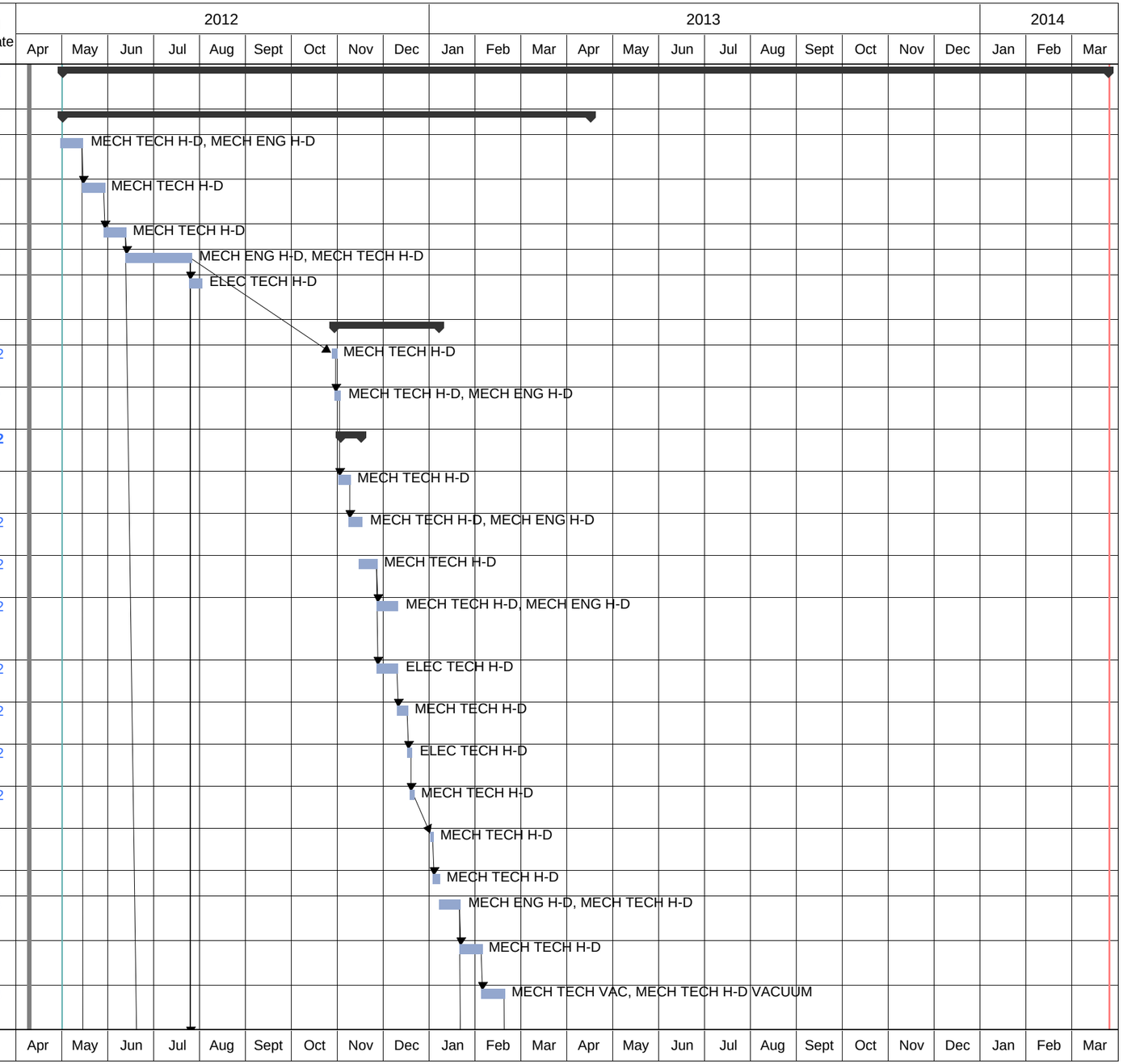
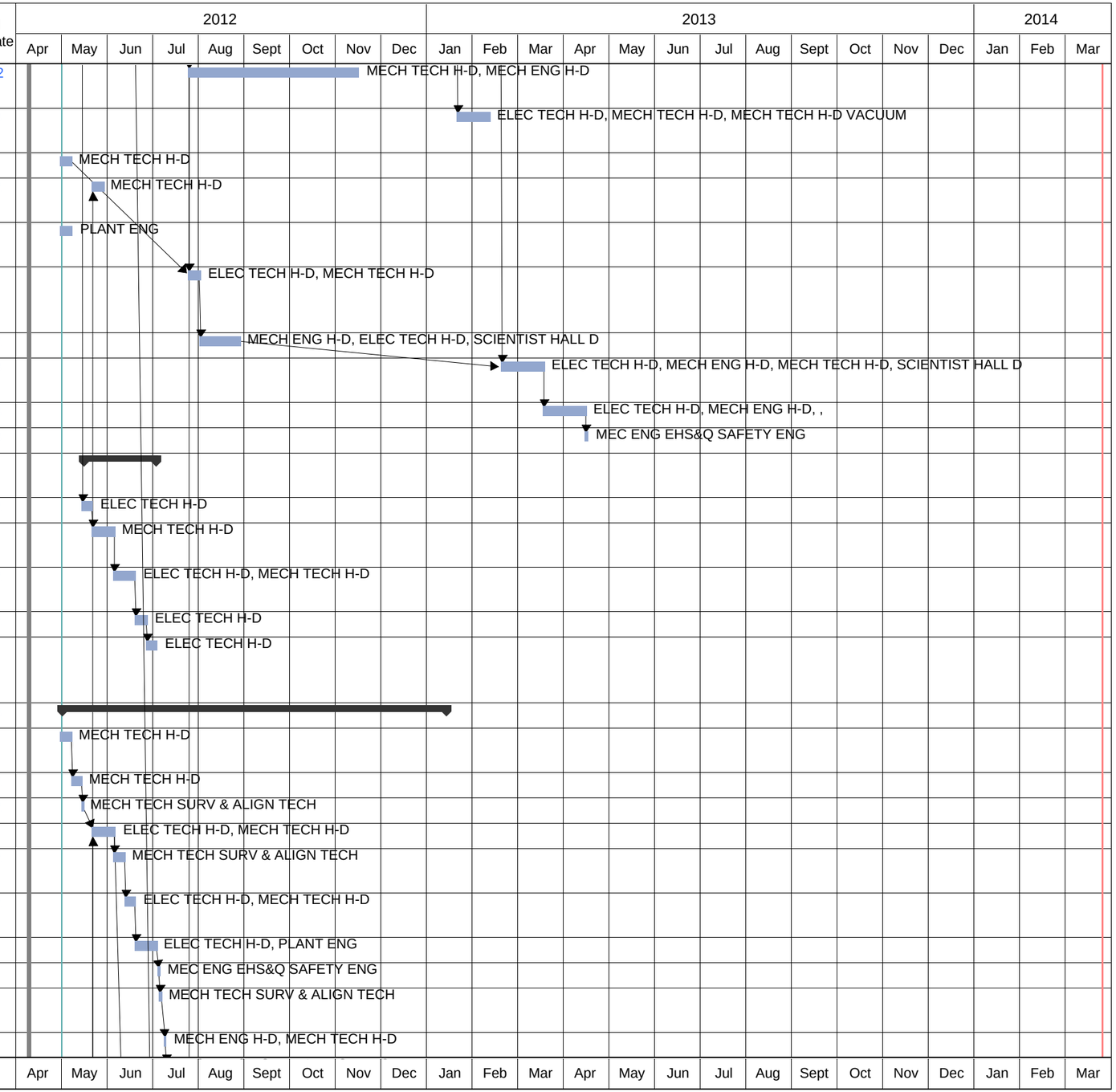
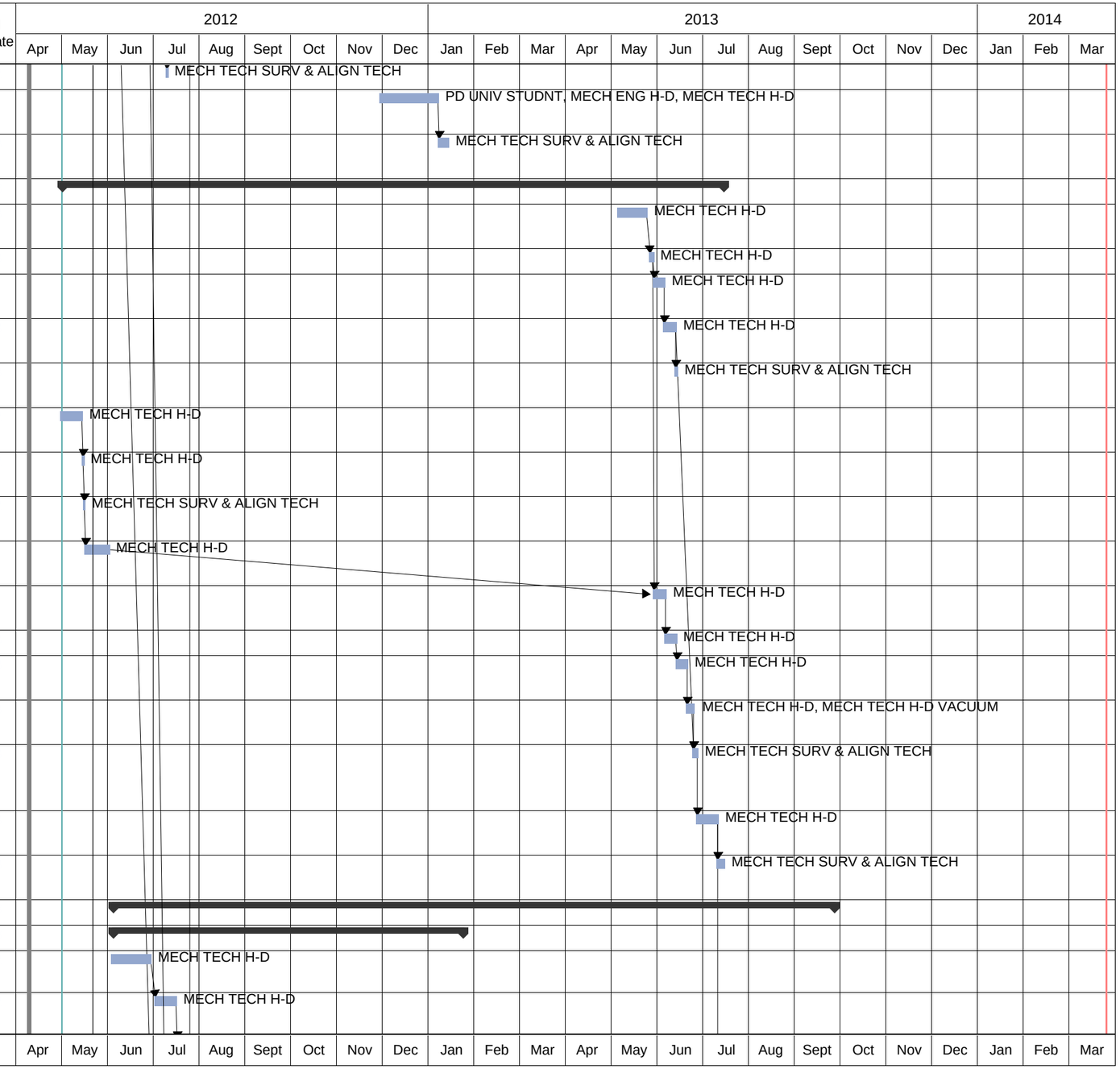
| | Name | Duration (Work Days) | Start Date | Finish Date | Revised Duration (Work Days) | Revised Start Date | Revised Finish Date |
|---|---|---|---|---|---|---|---|
| 1 | Hall D Tasks during Long AD | **96.80** | **5/1/12** | **3/25/14** | **96.80** | **5/1/12** | **3/25/14** |
| 2 | Install Solenoid Magnet | **47.80** | **5/1/12** | **4/16/13** | **47.80** | **5/1/12** | **4/16/13** |
| 3 | *Install solenoid yoke 1 baffle axial supports* | 2.00 | 5/1/12 | 5/14/12 | 2.00 | 5/1/12 | 5/14/12 |
| 4 | *Install cladding and shims* | 2.00 | 5/15/12 | 5/29/12 | 2.00 | 5/15/12 | 5/29/12 |
| 5 | *Paint solenoid* | 2.00 | 5/30/12 | 6/12/12 | 2.00 | 5/30/12 | 6/12/12 |
| 6 | *Install solenoid platform* | 6.00 | 6/13/12 | 7/25/12 | 6.00 | 6/13/12 | 7/25/12 |
| 7 | *Bond platform members to ground* | 1.00 | 7/26/12 | 8/1/12 | 1.00 | 7/26/12 | 8/1/12 |
| 8 | *Install Cryo Can* | **8.40** | **10/29/12** | **1/7/13** | **8.40** | **10/29/12** | **1/7/13** |
| 9 | Crane can onto platform and bolt up | 0.50 | 10/29/12 | 10/31/12 | 0.50 | 10/29/12 | 10/31/12 |
| 10 | Adjust chimney heights to match cryocan | 0.40 | 10/31/12 | 11/2/12 | 0.40 | 10/31/12 | 11/2/12 |
| 11 | Install power leads in cryocan | **2.00** | **11/2/12** | **11/16/12** | **2.00** | **11/2/12** | **11/16/12** |
| 12 | *Fish current leads through to each coil* | 1.00 | 11/2/12 | 11/9/12 | 1.00 | 11/2/12 | 11/9/12 |
| 13 | *Connect current leads to input leads* | 1.00 | 11/9/12 | 11/16/12 | 1.00 | 11/9/12 | 11/16/12 |
| 14 | Install 30 layers MLI in bottom of chimney | 1.00 | 11/16/12 | 11/26/12 | 1.00 | 11/16/12 | 11/26/12 |
| 15 | Fabricate and install intra coil/Cryo can He and LN2 lines | 2.00 | 11/27/12 | 12/10/12 | 2.00 | 11/27/12 | 12/10/12 |
| 16 | Install senor wiring and test | 2.00 | 11/27/12 | 12/10/12 | 2.00 | 11/27/12 | 12/10/12 |
| 17 | Install 80K shield clam shell halves | 1.00 | 12/11/12 | 12/17/12 | 1.00 | 12/11/12 | 12/17/12 |
| 18 | Heat station sensor wiring to 80K shield | 0.40 | 12/18/12 | 12/19/12 | 0.40 | 12/18/12 | 12/19/12 |
| 19 | Insulate 80 K shield w/30 layers MLI | 0.40 | 12/20/12 | 12/21/12 | 0.40 | 12/20/12 | 12/21/12 |
| 20 | Clean and inspect and install Chimney o-rings | 0.40 | 1/2/13 | 1/3/13 | 0.40 | 1/2/13 | 1/3/13 |
| 21 | Bolt up chimneys | 0.40 | 1/4/13 | 1/7/13 | 0.40 | 1/4/13 | 1/7/13 |
| 22 | *Install reliefs and safety valves* | 2.00 | 1/8/13 | 1/21/13 | 2.00 | 1/8/13 | 1/21/13 |
| 23 | *Pump on insulation vacuum* | 2.00 | 1/22/13 | 2/4/13 | 2.00 | 1/22/13 | 2/4/13 |
| 24 | *Leak check Solenoid and magnet* | 2.00 | 2/5/13 | 2/18/13 | 2.00 | 2/5/13 | 2/18/13 |



| | Name | Duration (Work Days) | Start Date | Finish Date | Revised Duration (Work Days) | Revised Start Date | Revised Finish Date |
|---|---|---|---|---|---|---|---|
| 25 | *Install Cryo lines from Cryo building* | 16.00 | 7/26/12 | 11/15/12 | 16.00 | 7/26/12 | 11/15/12 |
| 26 | *Install insulation vacuum pumping system* | 3.00 | 1/22/13 | 2/11/13 | 3.00 | 1/22/13 | 2/11/13 |
| 27 | *Install Power supply* | 1.00 | 5/1/12 | 5/7/12 | 1.00 | 5/1/12 | 5/7/12 |
| 28 | *Install/connect LCW lines to power supply* | 1.00 | 5/22/12 | 5/29/12 | 1.00 | 5/22/12 | 5/29/12 |
| 29 | *Mount switch for power supply and connect* | 1.00 | 5/1/12 | 5/7/12 | 1.00 | 5/1/12 | 5/7/12 |
| 30 | *Install cable tray for Solenoid leads and sensor cables* | 1.00 | 7/26/12 | 8/1/12 | 1.00 | 7/26/12 | 8/1/12 |
| 31 | *Upgrade solenoid controls* | 4.00 | 8/2/12 | 8/29/12 | 4.00 | 8/2/12 | 8/29/12 |
| 32 | *Cool down solenoid and test controls* | 4.00 | 2/19/13 | 3/18/13 | 4.00 | 2/19/13 | 3/18/13 |
| 33 | *Commissioning* | 4.00 | 3/19/13 | 4/15/13 | 4.00 | 3/19/13 | 4/15/13 |
| 34 | *Fringe field survey* | 0.20 | 4/16/13 | 4/16/13 | 0.20 | 4/16/13 | 4/16/13 |
| 35 | Solenoid Field pick-up Coils | **7.00** | **5/15/12** | **7/3/12** | **7.00** | **5/15/12** | **7/3/12** |
| 36 | *Fabricate pick-up coils* | 1.00 | 5/15/12 | 5/21/12 | 1.00 | 5/15/12 | 5/21/12 |
| 37 | *Install pick-up coils inside solenoid bore* | 2.00 | 5/22/12 | 6/5/12 | 2.00 | 5/22/12 | 6/5/12 |
| 38 | *Fabricate pick-up coil junction box and mount* | 2.00 | 6/6/12 | 6/19/12 | 2.00 | 6/6/12 | 6/19/12 |
| 39 | *Wire coils to junction box* | 1.00 | 6/20/12 | 6/26/12 | 1.00 | 6/20/12 | 6/26/12 |
| 40 | *Fabricate cable from junction box to XXX? and connect* | 1.00 | 6/27/12 | 7/3/12 | 1.00 | 6/27/12 | 7/3/12 |
| 41 | PS Magnet | **34.60** | **5/1/12** | **1/14/13** | **34.60** | **5/1/12** | **1/14/13** |
| 42 | *Install additional steel to PS mag pole* | 1.00 | 5/1/12 | 5/7/12 | 1.00 | 5/1/12 | 5/7/12 |
| 43 | *Reassemble PS magnet* | 1.00 | 5/8/12 | 5/14/12 | 1.00 | 5/8/12 | 5/14/12 |
| 44 | *Fiducialize PS magnet* | 0.20 | 5/15/12 | 5/15/12 | 0.20 | 5/15/12 | 5/15/12 |
| 45 | *Install PS magnet* | 2.00 | 5/22/12 | 6/5/12 | 2.00 | 5/22/12 | 6/5/12 |
| 46 | *PS magnet initial alignment* | 1.00 | 6/6/12 | 6/12/12 | 1.00 | 6/6/12 | 6/12/12 |
| 47 | *Install Magnet Power supply* | 1.00 | 6/13/12 | 6/19/12 | 1.00 | 6/13/12 | 6/19/12 |
| 48 | *Test Magnet and controls* | 2.00 | 6/20/12 | 7/3/12 | 2.00 | 6/20/12 | 7/3/12 |
| 49 | *Fringe field survey* | 0.20 | 7/5/12 | 7/5/12 | 0.20 | 7/5/12 | 7/5/12 |
| 50 | *Fiducialize Vacuum boxes* | 0.20 | 7/6/12 | 7/6/12 | 0.20 | 7/6/12 | 7/6/12 |
| 51 | *Install Vacuum boxes* | 0.20 | 7/9/12 | 7/9/12 | 0.20 | 7/9/12 | 7/9/12 |



| | Name | Duration (Work Days) | Start Date | Finish Date | Revised Duration (Work Days) | Revised Start Date | Revised Finish Date |
|---|---|---|---|---|---|---|---|
| 52 | *Perform initial alignment* | 0.20 | 7/10/12 | 7/10/12 | 0.20 | 7/10/12 | 7/10/12 |
| 53 | *Install PS detector package* | 4.00 | 11/30/12 | 1/7/13 | 4.00 | 11/30/12 | 1/7/13 |
| 54 | *Survey and align detectors* | 1.00 | 1/8/13 | 1/14/13 | 1.00 | 1/8/13 | 1/14/13 |
| 55 | Collimator Cave | **60.50** | **5/1/12** | **7/15/13** | **60.50** | **5/1/12** | **7/15/13** |
| 56 | *Assemble Active collimator* | 3.00 | 5/6/13 | 5/24/13 | 3.00 | 5/6/13 | 5/24/13 |
| 57 | *Install active collimator* | 0.60 | 5/27/13 | 5/29/13 | 0.60 | 5/27/13 | 5/29/13 |
| 58 | *Assemble primary fixed collimator* | 1.00 | 5/30/13 | 6/5/13 | 1.00 | 5/30/13 | 6/5/13 |
| 59 | *Install Primary Fixed collimator* | 1.10 | 6/6/13 | 6/13/13 | 1.10 | 6/6/13 | 6/13/13 |
| 60 | *Fiducialize Primary/fixed collimator* | 0.20 | 6/13/13 | 6/14/13 | 0.20 | 6/13/13 | 6/14/13 |
| 61 | *Assemble Secondary Fixed Collimator* | 2.00 | 5/1/12 | 5/14/12 | 2.00 | 5/1/12 | 5/14/12 |
| 62 | *Install Secondary Fixed Collimator* | 0.20 | 5/15/12 | 5/15/12 | 0.20 | 5/15/12 | 5/15/12 |
| 63 | *Fiducialize Secondary Fixed Collimator* | 0.20 | 5/16/12 | 5/16/12 | 0.20 | 5/16/12 | 5/16/12 |
| 64 | *Test Beam line window material* | 2.20 | 5/17/12 | 6/1/12 | 2.20 | 5/17/12 | 6/1/12 |
| 65 | *Install Windows on beam line* | 1.10 | 5/30/13 | 6/6/13 | 1.10 | 5/30/13 | 6/6/13 |
| 66 | *Install Harps and stands* | 1.10 | 6/6/13 | 6/13/13 | 1.10 | 6/6/13 | 6/13/13 |
| 67 | *Install beam line piping supports* | 1.00 | 6/14/13 | 6/20/13 | 1.00 | 6/14/13 | 6/20/13 |
| 68 | *Install vacuum beam line components* | 0.50 | 6/21/13 | 6/25/13 | 0.50 | 6/21/13 | 6/25/13 |
| 69 | *Initial Alignment Collimator cave components* | 0.40 | 6/25/13 | 6/27/13 | 0.40 | 6/25/13 | 6/27/13 |
| 70 | *Install vacuum pumps and pump down* | 2.00 | 6/27/13 | 7/11/13 | 2.00 | 6/27/13 | 7/11/13 |
| 71 | *Final Align Collimator cave components* | 0.40 | 7/11/13 | 7/15/13 | 0.40 | 7/11/13 | 7/15/13 |
| 72 | Installation of detectors | **66.80** | **6/4/12** | **9/27/13** | **66.80** | **6/4/12** | **9/27/13** |
| 73 | *FCAL* | **31.60** | **6/4/12** | **1/24/13** | **31.60** | **6/4/12** | **1/24/13** |
| 74 | Assemble downstream carriage | 4.00 | 6/4/12 | 6/29/12 | 4.00 | 6/4/12 | 6/29/12 |
| 75 | Install FCAL Detector housing | 2.00 | 7/2/12 | 7/16/12 | 2.00 | 7/2/12 | 7/16/12 |



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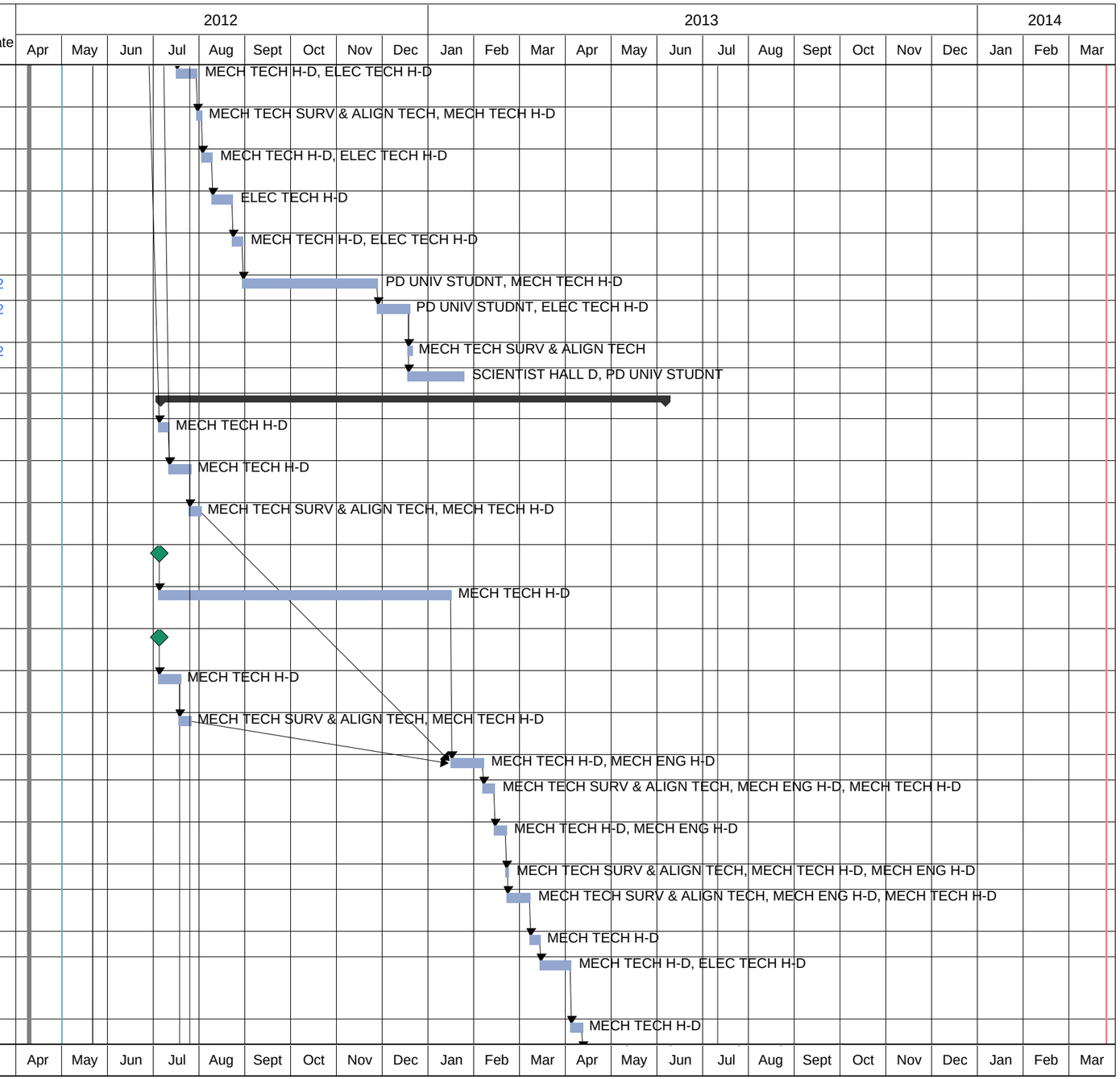
|---|---|---|---|---|---|---|---|
| 76 | Install Detector housing infrastructure | 2.00 | 7/17/12 | 7/30/12 | 2.00 | 7/17/12 | 7/30/12 |
| 77 | Fiducialize FCAL Detector housing | 0.60 | 7/31/12 | 8/2/12 | 0.60 | 7/31/12 | 8/2/12 |
| 78 | Mount FCAL equipment racks | 1.00 | 8/3/12 | 8/9/12 | 1.00 | 8/3/12 | 8/9/12 |
| 79 | Install Electronic equipment into racks | 2.00 | 8/10/12 | 8/23/12 | 2.00 | 8/10/12 | 8/23/12 |
| 80 | Fabricate Semi-clean tent on carriage | 1.00 | 8/24/12 | 8/30/12 | 1.00 | 8/24/12 | 8/30/12 |
| 81 | Stack FCAL blocks | 12.00 | 8/31/12 | 11/27/12 | 12.00 | 8/31/12 | 11/27/12 |
| 82 | Install PMT,s and interior cabling | 3.00 | 11/28/12 | 12/18/12 | 3.00 | 11/28/12 | 12/18/12 |
| 83 | Align FCAL to beam line | 0.40 | 12/19/12 | 12/20/12 | 0.40 | 12/19/12 | 12/20/12 |
| 84 | Test FCAL | 4.00 | 12/19/12 | 1/24/13 | 4.00 | 12/19/12 | 1/24/13 |
| 85 | *BCAL* | **46.20** | **7/5/12** | **6/6/13** | **46.20** | **7/5/12** | **6/6/13** |
| 86 | Remove portion of Up-Stream(US) Platform | 1.00 | 7/5/12 | 7/11/12 | 1.00 | 7/5/12 | 7/11/12 |
| 87 | Install BCAL rails into solenoid | 2.00 | 7/12/12 | 7/25/12 | 2.00 | 7/12/12 | 7/25/12 |
| 88 | Survey and Align BCAL Rails | 1.00 | 7/26/12 | 8/1/12 | 1.00 | 7/26/12 | 8/1/12 |
| 89 | Receive BCAL light guides | 0.00 | 7/5/12 | 7/5/12 | 0.00 | 7/5/12 | 7/5/12 |
| 90 | Assemble BCAL light guide/readout | 26.00 | 7/5/12 | 1/16/13 | 26.00 | 7/5/12 | 1/16/13 |
| 91 | Receive BCAL Assembly Cart components | 0.00 | 7/5/12 | 7/5/12 | 0.00 | 7/5/12 | 7/5/12 |
| 92 | Fabricate BCAL Assembly cart | 2.00 | 7/5/12 | 7/18/12 | 2.00 | 7/5/12 | 7/18/12 |
| 93 | Align BCAL tooling assembly | 1.00 | 7/19/12 | 7/25/12 | 1.00 | 7/19/12 | 7/25/12 |
| 94 | Assemble BCAL wedge | 3.00 | 1/17/13 | 2/6/13 | 3.00 | 1/17/13 | 2/6/13 |
| 95 | Survey align BCAL on assembly cart | 1.00 | 2/7/13 | 2/13/13 | 1.00 | 2/7/13 | 2/13/13 |
| 96 | Install BCAL into Solenoid | 1.00 | 2/14/13 | 2/20/13 | 1.00 | 2/14/13 | 2/20/13 |
| 97 | Survey BCAL in position | 0.20 | 2/21/13 | 2/21/13 | 0.20 | 2/21/13 | 2/21/13 |
| 98 | Install/align FDC and FDC cable rails | 2.00 | 2/22/13 | 3/7/13 | 2.00 | 2/22/13 | 3/7/13 |
| 99 | Install Cooling Manifolds | 1.00 | 3/8/13 | 3/14/13 | 1.00 | 3/8/13 | 3/14/13 |
| 100 | Pre-install Cables, gas, and cooling lines on Face of Solenoid | 3.00 | 3/15/13 | 4/4/13 | 3.00 | 3/15/13 | 4/4/13 |
| 101 | Remove BCAL Platform | 1.00 | 4/5/13 | 4/11/13 | 1.00 | 4/5/13 | 4/11/13 |



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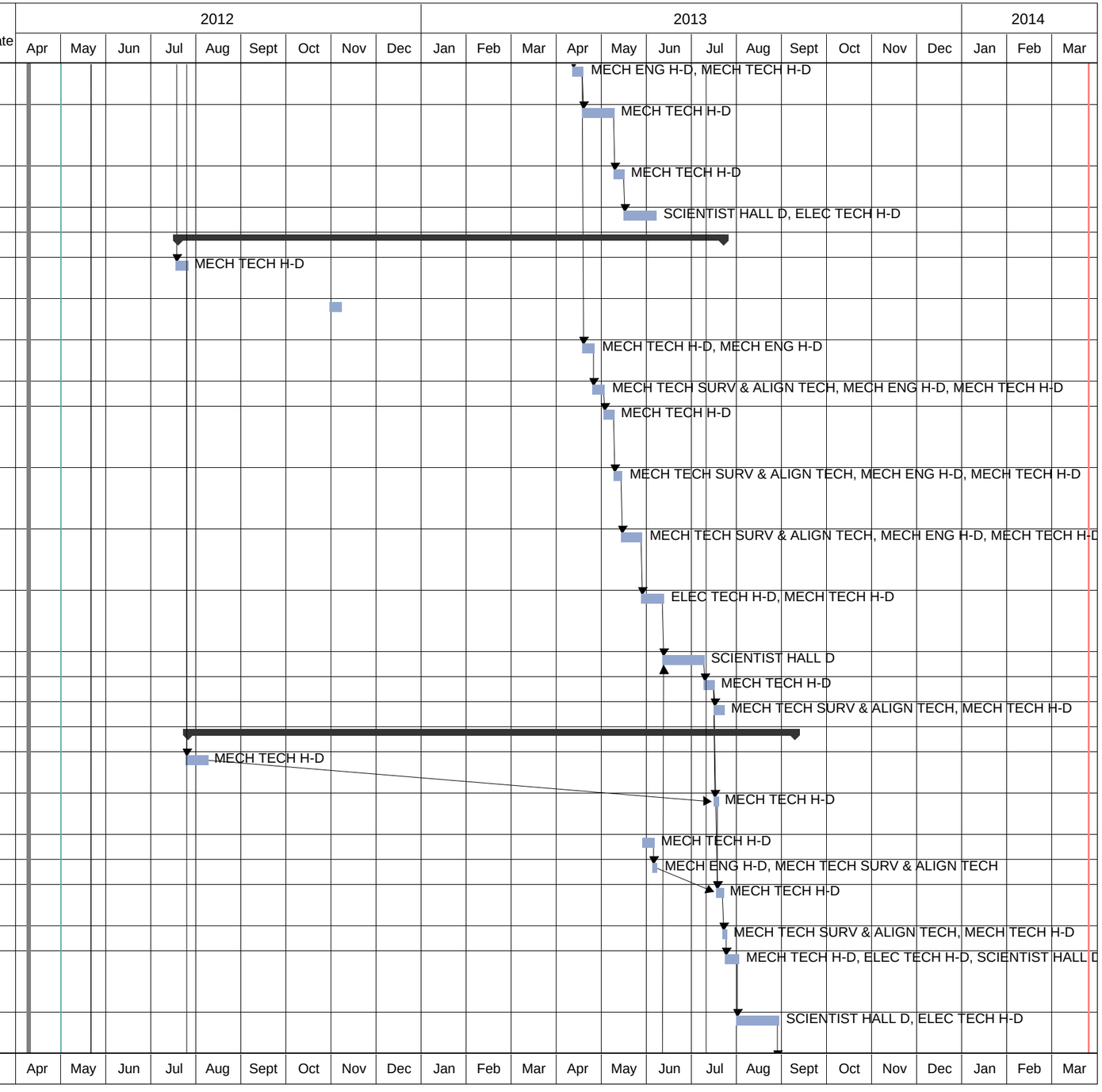
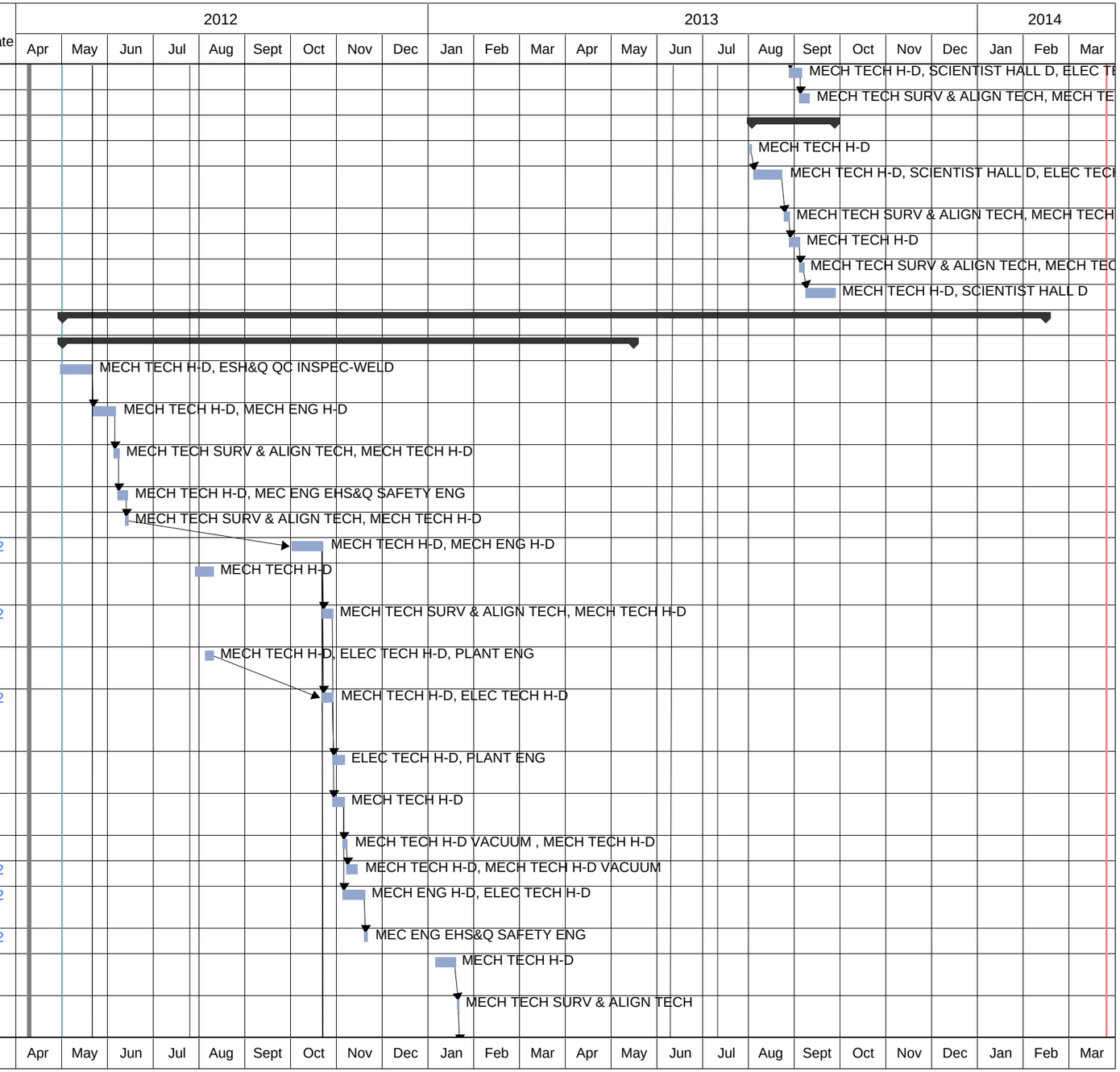
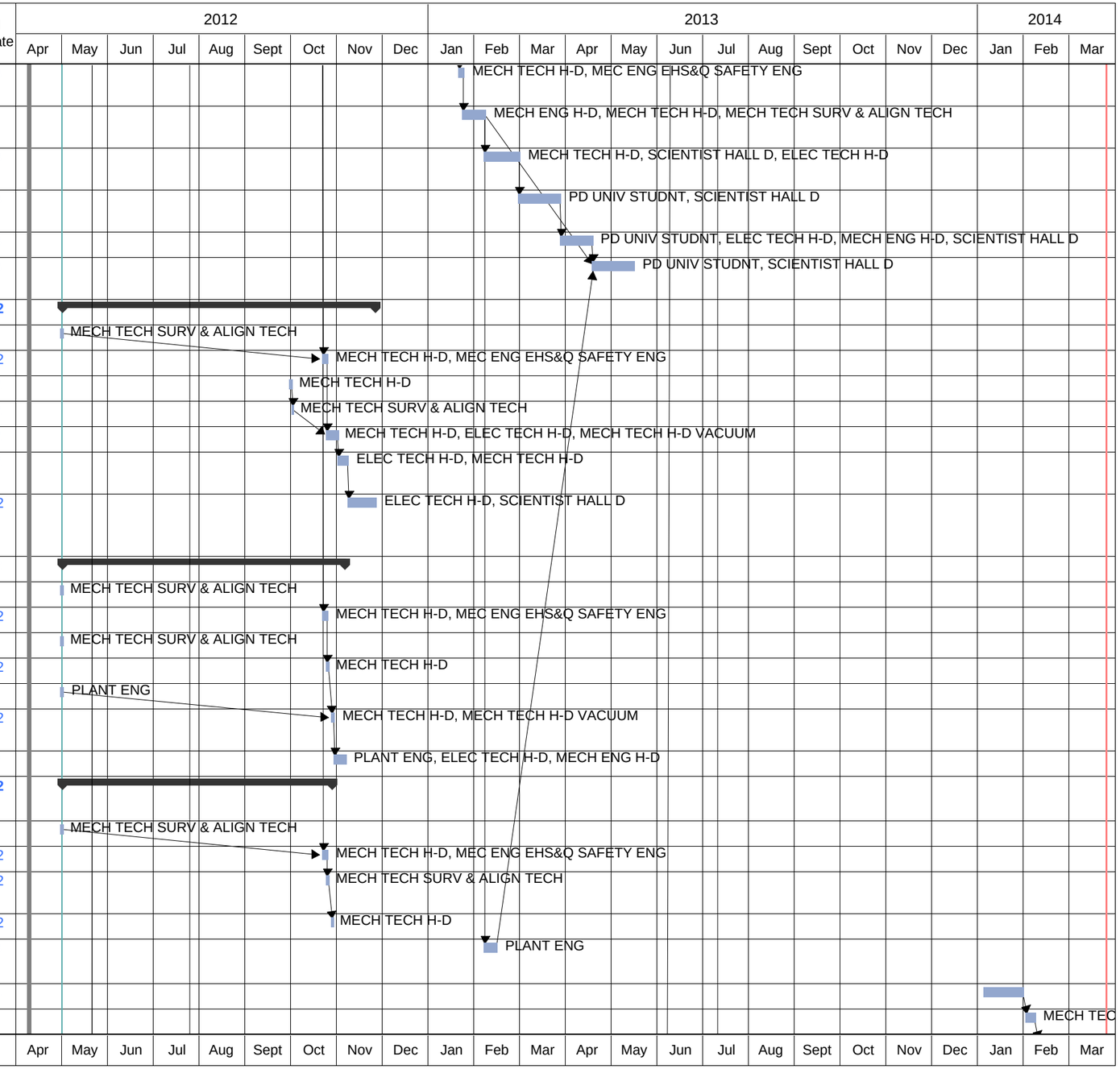
|---|---|---|---|---|---|---|---|
| 102 | Reinstall removed US platform | 1.00 | 4/12/13 | 4/18/13 | 1.00 | 4/12/13 | 4/18/13 |
| 103 | Install cooling plates, SiPM's, etc on all 48 modules | 3.00 | 4/19/13 | 5/9/13 | 3.00 | 4/19/13 | 5/9/13 |
| 104 | Connect cabling, gas, cooling lines | 1.00 | 5/10/13 | 5/16/13 | 1.00 | 5/10/13 | 5/16/13 |
| 105 | Test BCAL | 3.00 | 5/17/13 | 6/6/13 | 3.00 | 5/17/13 | 6/6/13 |
| 106 | *FDC* | **50.80** | **7/19/12** | **7/23/13** | **50.80** | **7/19/12** | **7/23/13** |
| 107 | Fabricate FDC Installation Cart | 1.00 | 7/19/12 | 7/25/12 | 1.00 | 7/19/12 | 7/25/12 |
| 108 | Fiducialize Finished FDC Detector | 1.00 | 11/1/12 | 11/7/12 | 1.00 | 11/1/12 | 11/7/12 |
| 109 | Install Insertion Cart rails on US platform | 1.00 | 4/19/13 | 4/25/13 | 1.00 | 4/19/13 | 4/25/13 |
| 110 | Survey/Align rails | 1.00 | 4/26/13 | 5/2/13 | 1.00 | 4/26/13 | 5/2/13 |
| 111 | Install cart and perform rough Align with rails in BCAL | 1.00 | 5/3/13 | 5/9/13 | 1.00 | 5/3/13 | 5/9/13 |
| 112 | Survey/Align Rails on FDC cart to match rails on BCAL | 0.60 | 5/10/13 | 5/14/13 | 0.60 | 5/10/13 | 5/14/13 |
| 113 | Install FDC onto insertion cart and install align in Solenoid | 2.00 | 5/15/13 | 5/28/13 | 2.00 | 5/15/13 | 5/28/13 |
| 114 | Remove FDC from Solenoid and cable to electronics | 2.00 | 5/29/13 | 6/11/13 | 2.00 | 5/29/13 | 6/11/13 |
| 115 | Test FDC | 4.00 | 6/12/13 | 7/9/13 | 4.00 | 6/12/13 | 7/9/13 |
| 116 | Install FDC | 1.00 | 7/10/13 | 7/16/13 | 1.00 | 7/10/13 | 7/16/13 |
| 117 | Perform final survey | 1.00 | 7/17/13 | 7/23/13 | 1.00 | 7/17/13 | 7/23/13 |
| 118 | *CDC* | **56.70** | **7/26/12** | **9/10/13** | **56.70** | **7/26/12** | **9/10/13** |
| 119 | Fabricate CDC insertion cart | 2.00 | 7/26/12 | 8/8/12 | 2.00 | 7/26/12 | 8/8/12 |
| 120 | Install cart and rough align to installation rails | 0.40 | 7/17/13 | 7/18/13 | 0.40 | 7/17/13 | 7/18/13 |
| 121 | CDC delivered to Lab | 1.00 | 5/30/13 | 6/5/13 | 1.00 | 5/30/13 | 6/5/13 |
| 122 | Fiducialize CDC | 0.40 | 6/6/13 | 6/7/13 | 0.40 | 6/6/13 | 6/7/13 |
| 123 | Install CDC on insertion cart | 0.40 | 7/19/13 | 7/22/13 | 0.40 | 7/19/13 | 7/22/13 |
| 124 | Install CDC and Survey | 0.50 | 7/23/13 | 7/25/13 | 0.50 | 7/23/13 | 7/25/13 |
| 125 | Remove CDC from Solenoid and install cables | 1.00 | 7/25/13 | 8/1/13 | 1.00 | 7/25/13 | 8/1/13 |
| 126 | Test CDC on Insertion cart | 4.00 | 8/1/13 | 8/29/13 | 4.00 | 8/1/13 | 8/29/13 |



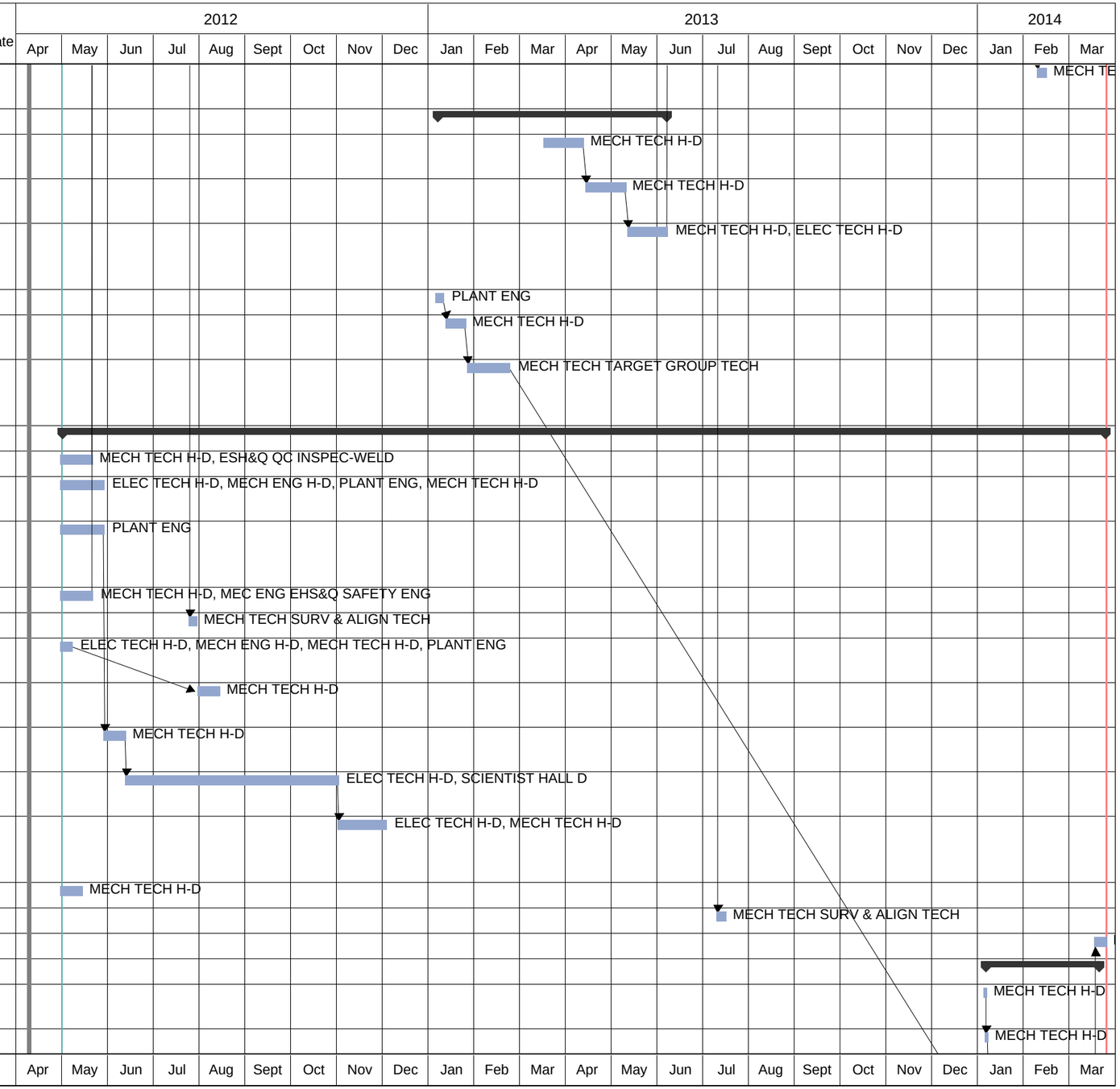
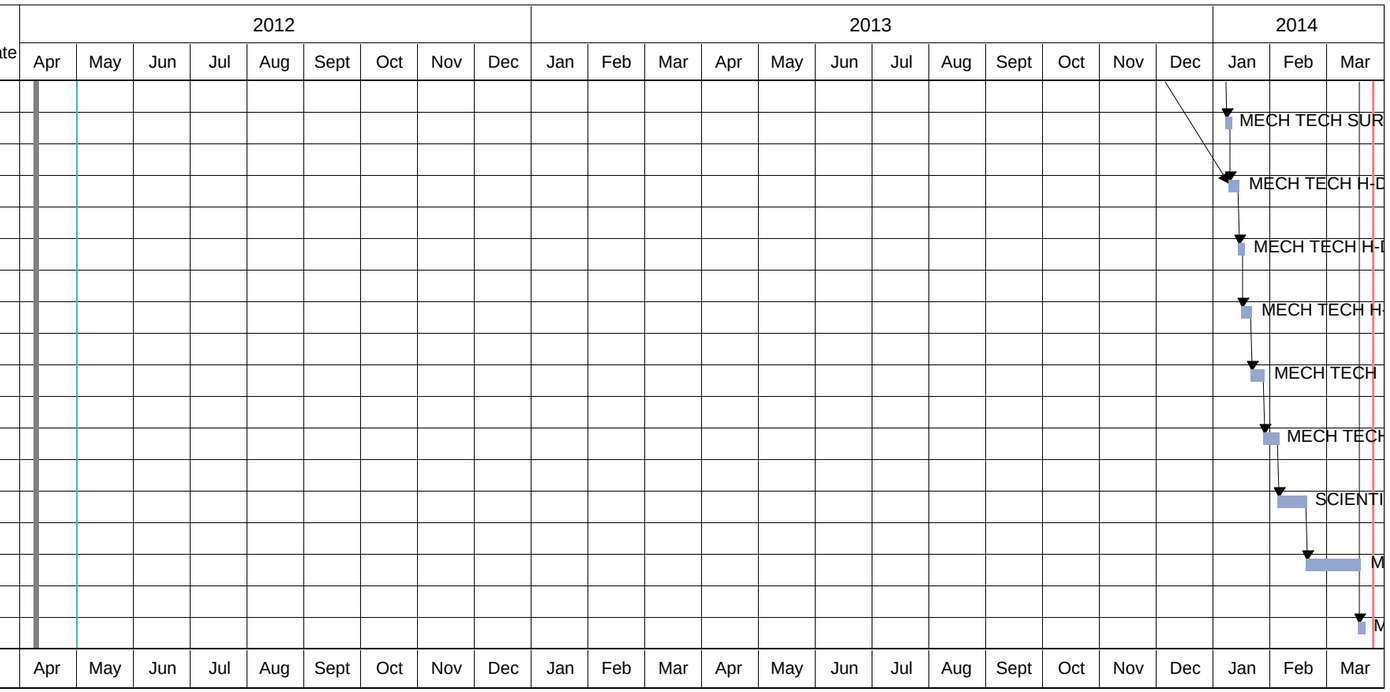
| | Name | Duration (Work Days) | Start Date | Finish Date | Revised Duration (Work Days) | Revised Start Date | Revised Finish Date |
|---|---|---|---|---|---|---|---|
| 127 | Install CDC and retest | 1.00 | 8/29/13 | 9/5/13 | 1.00 | 8/29/13 | 9/5/13 |
| 128 | Perform final survey | 0.60 | 9/5/13 | 9/10/13 | 0.60 | 9/5/13 | 9/10/13 |
| 129 | *TOF* | **8.20** | **8/2/13** | **9/27/13** | **8.20** | **8/2/13** | **9/27/13** |
| 130 | Receive TOF Panels | 0.20 | 8/2/13 | 8/2/13 | 0.20 | 8/2/13 | 8/2/13 |
| 131 | Assemble TOF into frames and test | 3.00 | 8/5/13 | 8/23/13 | 3.00 | 8/5/13 | 8/23/13 |
| 132 | Fiducialize Panels | 0.60 | 8/26/13 | 8/28/13 | 0.60 | 8/26/13 | 8/28/13 |
| 133 | Mount panels | 1.00 | 8/29/13 | 9/4/13 | 1.00 | 8/29/13 | 9/4/13 |
| 134 | Align Panels | 0.40 | 9/5/13 | 9/6/13 | 0.40 | 9/5/13 | 9/6/13 |
| 135 | Cable TOF and Test | 3.00 | 9/9/13 | 9/27/13 | 3.00 | 9/9/13 | 9/27/13 |
| 136 | Tagger Hall | **91.40** | **5/1/12** | **2/14/14** | **91.40** | **5/1/12** | **2/14/14** |
| 137 | *Tagger* | **52.20** | **5/1/12** | **5/16/13** | **52.20** | **5/1/12** | **5/16/13** |
| 138 | Fabricate and install Tagger LCW manifold | 3.00 | 5/1/12 | 5/21/12 | 3.00 | 5/1/12 | 5/21/12 |
| 139 | Assemble tagger magnet gantry crane | 2.00 | 5/22/12 | 6/5/12 | 2.00 | 5/22/12 | 6/5/12 |
| 140 | Survey and Mark Tagger stand locations | 0.50 | 6/6/12 | 6/8/12 | 0.50 | 6/6/12 | 6/8/12 |
| 141 | Install Tagger stands | 0.60 | 6/8/12 | 6/13/12 | 0.60 | 6/8/12 | 6/13/12 |
| 142 | Align Stands | 0.20 | 6/13/12 | 6/14/12 | 0.20 | 6/13/12 | 6/14/12 |
| 143 | Install Tagger Magnet | 3.00 | 10/2/12 | 10/22/12 | 3.00 | 10/2/12 | 10/22/12 |
| 144 | Fabricate/test thin window tagger | 2.00 | 7/30/12 | 8/10/12 | 2.00 | 7/30/12 | 8/10/12 |
| 145 | Fiducialize magnet and align | 1.00 | 10/23/12 | 10/29/12 | 1.00 | 10/23/12 | 10/29/12 |
| 146 | Install Power supply in Service Building | 1.00 | 8/6/12 | 8/10/12 | 1.00 | 8/6/12 | 8/10/12 |
| 147 | Install power cables between supply and magnet | 1.00 | 10/23/12 | 10/29/12 | 1.00 | 10/23/12 | 10/29/12 |
| 148 | Test Power supply and controls | 1.00 | 10/30/12 | 11/5/12 | 1.00 | 10/30/12 | 11/5/12 |
| 149 | Connect to LCW and test for leaks | 1.00 | 10/30/12 | 11/5/12 | 1.00 | 10/30/12 | 11/5/12 |
| 150 | Install Vacuum pump | 0.40 | 11/6/12 | 11/7/12 | 0.40 | 11/6/12 | 11/7/12 |
| 151 | Install thin window | 1.00 | 11/8/12 | 11/14/12 | 1.00 | 11/8/12 | 11/14/12 |
| 152 | Energize magnet and test controls | 2.00 | 11/6/12 | 11/19/12 | 2.00 | 11/6/12 | 11/19/12 |
| 153 | Fringe field survey | 0.20 | 11/20/12 | 11/20/12 | 0.20 | 11/20/12 | 11/20/12 |
| 154 | Built Hodoscope support frame | 2.00 | 1/7/13 | 1/18/13 | 2.00 | 1/7/13 | 1/18/13 |
| 155 | Mark Hodoscope support stand locations | 0.20 | 1/21/13 | 1/21/13 | 0.20 | 1/21/13 | 1/21/13 |



| | Name | Duration (Work Days) | Start Date | Finish Date | Revised Duration (Work Days) | Revised Start Date | Revised Finish Date |
|---|---|---|---|---|---|---|---|
| 156 | Install Hodoscope support stands | 0.60 | 1/22/13 | 1/24/13 | 0.60 | 1/22/13 | 1/24/13 |
| 157 | Mount Hodoscope and Align | 2.00 | 1/25/13 | 2/7/13 | 2.00 | 1/25/13 | 2/7/13 |
| 158 | Install electronic equipment and racks | 3.00 | 2/8/13 | 2/28/13 | 3.00 | 2/8/13 | 2/28/13 |
| 159 | Install Hodoscope detectors and cabling | 4.00 | 3/1/13 | 3/28/13 | 4.00 | 3/1/13 | 3/28/13 |
| 160 | Install Microscope | 3.00 | 3/29/13 | 4/18/13 | 3.00 | 3/29/13 | 4/18/13 |
| 161 | Test Hodoscope and Microscope | 4.00 | 4/19/13 | 5/16/13 | 4.00 | 4/19/13 | 5/16/13 |
| 162 | *Goniometer* | **29.00** | **5/1/12** | **11/26/12** | **29.00** | **5/1/12** | **11/26/12** |
| 163 | Mark Stand location | 0.20 | 5/1/12 | 5/1/12 | 0.20 | 5/1/12 | 5/1/12 |
| 164 | Install stand | 0.60 | 10/23/12 | 10/25/12 | 0.60 | 10/23/12 | 10/25/12 |
| 165 | Receive instrument | 0.20 | 10/1/12 | 10/1/12 | 0.20 | 10/1/12 | 10/1/12 |
| 166 | Fiducialize Goniometer | 0.20 | 10/2/12 | 10/2/12 | 0.20 | 10/2/12 | 10/2/12 |
| 167 | Install Goniometer | 1.00 | 10/26/12 | 11/1/12 | 1.00 | 10/26/12 | 11/1/12 |
| 168 | Run cables from racks to device | 1.00 | 11/2/12 | 11/8/12 | 1.00 | 11/2/12 | 11/8/12 |
| 169 | Connect Motor and position read back cables; test | 2.00 | 11/9/12 | 11/26/12 | 2.00 | 11/9/12 | 11/26/12 |
| 170 | *Quadrapole magnet* | **26.60** | **5/1/12** | **11/6/12** | **26.60** | **5/1/12** | **11/6/12** |
| 171 | Mark Stand location | 0.20 | 5/1/12 | 5/1/12 | 0.20 | 5/1/12 | 5/1/12 |
| 172 | Install stands | 0.60 | 10/23/12 | 10/25/12 | 0.60 | 10/23/12 | 10/25/12 |
| 173 | Fiducialize magnet | 0.20 | 5/1/12 | 5/1/12 | 0.20 | 5/1/12 | 5/1/12 |
| 174 | Install magnet onto stand | 0.20 | 10/26/12 | 10/26/12 | 0.20 | 10/26/12 | 10/26/12 |
| 175 | Procure power supply | 0.20 | 5/1/12 | 5/1/12 | 0.20 | 5/1/12 | 5/1/12 |
| 176 | Connect power and LCW lines | 0.40 | 10/29/12 | 10/30/12 | 0.40 | 10/29/12 | 10/30/12 |
| 177 | Test Magnet | 1.00 | 10/31/12 | 11/6/12 | 1.00 | 10/31/12 | 11/6/12 |
| 178 | *Permanent Sweep Magnet* | **25.40** | **5/1/12** | **10/29/12** | **25.40** | **5/1/12** | **10/29/12** |
| 179 | Mark stand Locations | 0.20 | 5/1/12 | 5/1/12 | 0.20 | 5/1/12 | 5/1/12 |
| 180 | Install Stands | 0.60 | 10/23/12 | 10/25/12 | 0.60 | 10/23/12 | 10/25/12 |
| 181 | Fiducialize Sweep magnet | 0.20 | 10/26/12 | 10/26/12 | 0.20 | 10/26/12 | 10/26/12 |
| 182 | Install Sweep Magnet | 0.20 | 10/29/12 | 10/29/12 | 0.20 | 10/29/12 | 10/29/12 |
| 183 | *Install Additional Power outlets* | 1.00 | 2/8/13 | 2/14/13 | 1.00 | 2/8/13 | 2/14/13 |
| 184 | *Install Tagger Dump* | 4.00 | 1/6/14 | 1/31/14 | 4.00 | 1/6/14 | 1/31/14 |
| 185 | *Install Beam line* | 1.00 | 2/3/14 | 2/7/14 | 1.00 | 2/3/14 | 2/7/14 |



| | Name | Duration (Work Days) | Start Date | Finish Date | Revised Duration (Work Days) | Revised Start Date | Revised Finish Date |
|---|---|---|---|---|---|---|---|
| 186 | *Align Tagger Hall Beam Line* | 1.00 | 2/10/14 | 2/14/14 | 1.00 | 2/10/14 | 2/14/14 |
| 187 | Gas shed | **22.00** | **1/7/13** | **6/7/13** | **22.00** | **1/7/13** | **6/7/13** |
| 188 | *Install gas system equipment in shed* | 4.00 | 3/18/13 | 4/12/13 | 4.00 | 3/18/13 | 4/12/13 |
| 189 | *Run detector gas lines to Hall* | 4.00 | 4/15/13 | 5/10/13 | 4.00 | 4/15/13 | 5/10/13 |
| 190 | *Run instrumentation lines between shed and sensors* | 4.00 | 5/13/13 | 6/7/13 | 4.00 | 5/13/13 | 6/7/13 |
| 191 | *Install Hydrogen tank* | 1.00 | 1/7/13 | 1/11/13 | 1.00 | 1/7/13 | 1/11/13 |
| 192 | *Run flammable gas lines to Target Cart area* | 2.00 | 1/14/13 | 1/25/13 | 2.00 | 1/14/13 | 1/25/13 |
| 193 | *Install Gas handling/monitoring equipment* | 4.00 | 1/28/13 | 2/22/13 | 4.00 | 1/28/13 | 2/22/13 |
| 194 | Hall infrastructure | **96.80** | **5/1/12** | **3/25/14** | **96.80** | **5/1/12** | **3/25/14** |
| 195 | *Complete Hall D LCW* | 3.00 | 5/1/12 | 5/21/12 | 3.00 | 5/1/12 | 5/21/12 |
| 196 | *Install electrical power infrastructure* | 4.00 | 5/1/12 | 5/29/12 | 4.00 | 5/1/12 | 5/29/12 |
| 197 | *Fire sprinkler system installed under US platform* | 4.00 | 5/1/12 | 5/29/12 | 4.00 | 5/1/12 | 5/29/12 |
| 198 | *Install collimator shielding* | 3.00 | 5/1/12 | 5/21/12 | 3.00 | 5/1/12 | 5/21/12 |
| 199 | *Control Network Survey* | 0.60 | 7/26/12 | 7/30/12 | 0.60 | 7/26/12 | 7/30/12 |
| 200 | *Install UPS in Counting House* | 1.00 | 5/1/12 | 5/7/12 | 1.00 | 5/1/12 | 5/7/12 |
| 201 | *Install racks in Counting House* | 2.00 | 8/1/12 | 8/14/12 | 2.00 | 8/1/12 | 8/14/12 |
| 202 | *Mount equipment racks in Hall D* | 2.00 | 5/30/12 | 6/12/12 | 2.00 | 5/30/12 | 6/12/12 |
| 203 | *Install Electronic equipment into Racks* | 20.00 | 6/13/12 | 11/1/12 | 20.00 | 6/13/12 | 11/1/12 |
| 204 | *Install cabling between racks and detector locations* | 4.00 | 11/2/12 | 12/3/12 | 4.00 | 11/2/12 | 12/3/12 |
| 205 | *Install air line* | 2.00 | 5/1/12 | 5/14/12 | 2.00 | 5/1/12 | 5/14/12 |
| 206 | *Control Network Survey* | 0.60 | 7/11/13 | 7/16/13 | 0.60 | 7/11/13 | 7/16/13 |
| 207 | *Control Network Survey* | 1.00 | 3/19/14 | 3/25/14 | 1.00 | 3/19/14 | 3/25/14 |
| 208 | Target | **10.90** | **1/6/14** | **3/21/14** | **10.90** | **1/6/14** | **3/21/14** |
| 209 | *Install Target insertion cart* | 0.20 | 1/6/14 | 1/6/14 | 0.20 | 1/6/14 | 1/6/14 |
| 210 | *Install target onto cart* | 0.20 | 1/7/14 | 1/7/14 | 0.20 | 1/7/14 | 1/7/14 |



| | Name | Duration (Work Days) | Start Date | Finish Date | Revised Duration (Work Days) | Revised Start Date | Revised Finish Date |
|---|---|---|---|---|---|---|---|
| 211 | | | | | | | |
| 212 | *Fidualize target* | 0.50 | 1/8/14 | 1/10/14 | 0.50 | 1/8/14 | 1/10/14 |
| 213 | | | | | | | |
| 214 | *Hook-up gas, Cryo lines* | 0.50 | 1/10/14 | 1/14/14 | 0.50 | 1/10/14 | 1/14/14 |
| 215 | | | | | | | |
| 216 | *Install target controls* | 0.50 | 1/15/14 | 1/17/14 | 0.50 | 1/15/14 | 1/17/14 |
| 217 | | | | | | | |
| 218 | *Install control cabling* | 0.50 | 1/17/14 | 1/21/14 | 0.50 | 1/17/14 | 1/21/14 |
| 219 | | | | | | | |
| 220 | *test target controls* | 1.00 | 1/22/14 | 1/28/14 | 1.00 | 1/22/14 | 1/28/14 |
| 221 | | | | | | | |
| 222 | *Install start counter* | 1.00 | 1/29/14 | 2/4/14 | 1.00 | 1/29/14 | 2/4/14 |
| 223 | | | | | | | |
| 224 | *Test start counter* | 2.00 | 2/5/14 | 2/18/14 | 2.00 | 2/5/14 | 2/18/14 |
| 225 | | | | | | | |
| 226 | *cool down target and test* | 4.00 | 2/19/14 | 3/18/14 | 4.00 | 2/19/14 | 3/18/14 |
| 227 | | | | | | | |
| 228 | *Align Target* | 0.50 | 3/19/14 | 3/21/14 | 0.50 | 3/19/14 | 3/21/14 |