PMC and EVM

Project Name: Home service & security Automation R&D

Task	Budget	Actual Cost	Duration	Predecessor	Resources	Assigned To
1. Planning 1.1) Plan Meeting 1.2) Strategy meeting 1.3) Schedule planning	2 lacs	1.8 lacs	7 days	none	Project Manager, Financial Manager, Strategist	Project Manager
2. Design 2.1) Developing software home assistant 2.2) Collect necessary hardwares 2.3) Smart lighting 2.4) Security devices	5 lacs	4.2 lacs	30 days	1	Software Developer, Hardware Engineer, Field Manager	Field Manager
3. Measure	3 lacs	2.5 lacs	7days	1	Senior	Senior

Outcomes					Manager	Manager
4. Evaluate Feedback	3 lacs	2.1 lacs	6 days	3	Employees	Senior Manager
5. Resource Management 5.1) Finance 5.2) Software 5.3) Hardware 5.4) Man power	10 lacs = 23 lacs till	10.8 lacs	45 days= 95 days	2,4	Hardware Engineers, Software Engineers, Employees	Resource Manager, Finance Manager
6. Budgeting 6.1) Find out the spend section 6.2) Budget estimation 6.3) Budget allocation	5 lacs	4 lacs	14 days = 109 days till now	5	Financial Manager, Project Manager, Senior Manager	Finance Manager, Project Manager
7. Manufacture 7.1) Energy Management 7.2) Air-con and lights 7.3) Security	30 lacs	34.5lacs	120 days = 229 days till now	2,6	Mechanical Engineer, Field Manager, Senior Manager,	Mechanical Engineer , Software developer

					Interior Designer, Software developer	
8. Integration	8 lacs	7.1lacs	60 days	7	Project Manager	Project Manager
9. System Analysis	5 lacs	3.7 lacs	14 days	7,8	Senior Manager	Senior Manager
10. Testing 10.1) Software testing 10.2) Security equipments testing	5 lacs	4.5 lacs	30 days = 333	7	UX designer, Robot specialist, Mechanical Engineer Project Manager	Project Manager
11. System Installation	7 lacs	6 lacs	14 days	9	Project Manager, Tester, System Consultant, Senior Testers	Project Manager
12. Risk Analysis 12.1) Marketing	10 lacs = 93 lacs	9.6 lacs	7 days = 347 days	10,11	Risk Manager, Engineers	Project Manager

Risk 12.2) Implementati on risk 12.3) Potential crisis						
13. Marketing 13.1) Advertising 13.2) Product tagline 13.3) Review existing market condition	7 lacs	6.5lacs = 97.3 lacs	21 days = 368 days	6	Marketing Manager	Project Manager

1st estimation:

According to our plan, the cost of our total work would be 1 crore. It will take 368 days to complete the project. Right now, we are 37 days into the project and we have spent 10 lac Taka. According to the WBS, step 3 has been done already.

- Budgeted at completion (BAC) : 1 crore
- Planned Value (PV) : 7 lac
- Earned Value(EV) : 2+5+3 = 10 lacs
- Actual Cost (AC) : 1.8+4.2+2.5 = 8.5 lacs
- SV = EV-PV = 10-7 = 3lac
- CV = EV- AC = 10-8.5 lac = 1.5 lac

- SPI = EV/PV = 10/7 = 1.429

- CPI = EV/AC = 10/8.5 =1.176 lac

- ETC = (BAC – EV)/CPI = (1 crore-10) / 1.176 = 7.653 lacs

- EAC = ETC + AC = 7.653+8.5 = 16.153 lacs

- CR =CPI X SPI = 1.176*1.429=1.680 lacs

2nd estimation:

According to our plan, the cost of our total work would be 1 crore. It will take 368 days to complete the project. Right now, we are 109 days into the project. According to the WBS, step 5 has been done.

- Budgeted at completion (BAC) : 1 crore
- Planned Value (PV) : 28 lac
- Earned Value(EV) : 23 lacs
- Actual Cost (AC) : 21.4 lacs
- SV = EV-PV = 23-28 = -5 lacs
- CV = EV- AC = 23-21.4 lac = 1.6 lacs
- SPI = EV/PV = 23/28 = 0.821 lacs
- CPI = EV/AC = 23/21.4 = 1.095 lacs

- ETC = (BAC – EV)/CPI = (1 crore - 23 lacs)/1.095 = 7.031 lacs

- EAC = ETC + AC = 7.031+ 21.4= 28.431 lacs

- CR =CPI * SPI = 1.095*0.821=0.898995 lacs

3rd estimation:

According to our plan, the cost of our total work would be 1 crore. It will take 368 days to complete the project. Right now, we are 347 days into the project. According to the WBS, step 13 has been done.

- Budgeted at completion (BAC) : 1 crore
- Planned Value (PV) : 93 lac
- Earned Value(EV) : 1 Crore

- Actual Cost (AC) : 97.3 lacs

- $SV = EV-PV = 1$ crore $-93 = 7$ lac

- $CV = EV- AC = 1$ crore -97.3 lac $= 2.7$ lac

- $SPI = EV/PV = 1$ crore $/ 93 = 1.07$

- $CPI = EV/AC = 1$ crore $/ 97.3 = 1.07$ lac

- $ETC = (BAC – EV)/CPI = (1$ crore$- 1$ crore $) /$ cpi$= 0$

- $EAC = ETC + AC = 0+97.3 = 97.3$ lacs

- $CR = CPI \times SPI = 1.1449$