

COCOMO RESULTS for Smart Home Climate Control System (SHCCS)								
MODE	"A" variable	"B" variable	"C" variable	"D" variable	KLOC	EFFORT, (in person-months)	DURATION, (in months)	STAFFING, (recommended)
embedded	2.3786877986470945	1.2	2.5	0.32	85.000	491.632	18.166	27.063
<p>Explanation: The coefficients are set according to the project mode selected on the previous page, (as per Boehm). Note: the decimal separator is a period.</p> <p>The final estimates are determined in the following manner:</p> <p><b>effort</b> = <math>a * KLOC^b</math>, in person-months, with KLOC = lines of code, (in thousands), and:</p> <p><b>staffing</b> = effort/duration</p> <p>where a has been adjusted by the factors:</p>								

**Product Attributes**

Required Reliability	1.15 (H )
Database Size	0.94 (L )
Product Complexity	1.15 (H )

**Computer Attributes**

Execution Time Constraint	1.11 (H )
Main Storage Constraint	1.00 (N )
Platform Volatility	0.87 (L )
Computer Turnaround Time	1.00 (N )

**Personnel Attributes**

Analyst Capability	0.86 (H )
Applications Experience	0.91 (H )
Programmer Capability	0.86 (H )
Platform Experience	0.90 (H )
Programming Language and Tool Experience	0.95 (H )

**Project Attributes**

Modern Programming Practices	0.91 (H )
Use of Software Tools	0.91 (H )
Required Development Schedule	1.00 (N )

**New (Values are probably wrong)**

Required reusability	1.05 (H )
Documentation match to life-cycle needs	1.10 (H )
Personnel continuity	1.00 (H )
Multisite development	1.00 (L )

For further reading, see Boehm, "Software Engineering Economics"

**WARNING:** If you see "NaN" or "undefined" in any field above, you have entered an **INVALID** value for KLOC or Mode! Hit the "BACK" button on your browser, hit the "RESET" button if you entered data previously, enter a **DECIMAL NUMBER** in the KLOC input text box and click on the appropriate mode!

**The project should save the results of this COCOMO calculation if needed to support its make or buy decision.**

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SWL03\_1\_ApplicationName:Smart Home Climate Control System (SHCCS)  
SWL03\_1\_ApplicationVersion:any  
SWL03\_1\_ApplicationNumber:STRS-SUB-  
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SWL25\_1\_ApplicationSLOC:85000  
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SWL25\_COCOMO\_b:1.2  
SWL25\_COCOMO\_c:2.5  
SWL25\_COCOMO\_d:0.32  
SWL25\_COCOMO\_e\_effort:491.632 (person-months)  
SWL25\_2\_ApplicationLevelOfEffort:491.632 (person-months)  
SWL25\_COCOMO\_t\_duration:18.166 (months)  
SWL25\_2\_ApplicationTime:18.166 (months)  
SWL25\_COCOMO\_eot\_staff:27.063 (recommended)  
SWL25\_COCOMO\_Required Reliability:1.15 (H )  
SWL25\_COCOMO\_Database Size:0.94 (L )  
SWL25\_COCOMO\_Product Complexity:1.15 (H )  
SWL25\_COCOMO\_Execution Time Constraint:1.11 (H )  
SWL25\_COCOMO\_Main Storage Constraint:1.00 (N )  
SWL25\_COCOMO\_Platform Volatility:0.87 (L )  
SWL25\_COCOMO\_Computer Turnaround Time:1.00 (N )  
SWL25\_COCOMO\_Analyst Capability:0.86 (H )  
SWL25\_COCOMO\_Applications Experience:0.91 (H )  
SWL25\_COCOMO\_Programmer Capability:0.86 (H )  
SWL25\_COCOMO\_Platform Experience:0.90 (H )  
SWL25\_COCOMO\_Programming Language and Tool Experience:0.95 (H )  
SWL25\_COCOMO\_Modern Programming Practices:0.91 (H )  
SWL25\_COCOMO\_Use of Software Tools:0.91 (H )  
SWL25\_COCOMO\_Required Development Schedule:1.00 (N )  
SWL25\_COCOMO\_Required reusability:1.05 (H )  
SWL25\_COCOMO\_Documentation match to life-cycle needs:1.10 (H )  
SWL25\_COCOMO\_Personnel continuity:1.00 (H )  
SWL25\_COCOMO\_Multisite development:1.00 (L )  
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STRS\_RepMgrSeeStep:17f  
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