Factorio Assembly Calculator

Prevent: This spreachbest was created by coolporentiate on Reddi (ass link below) and updated by Jonsthundli (factorio forums) to 3.4. I have checked it as much as I can but please give comments and feadack on the feature post. A bit phane you to the original creator for making such a useful tool for us number-crunching Picclorio players!

a useful tool fer un number-crunching Tactorio playens! "Upadaned for 8.551 Yayi If you find any problema (sauski typos), plasma report it here: https://forums.factorio.com/uter/opic.pht/9615446-265556-25555294255552 https://exam.sdit.com/tactorio.com/uter/opic.pht/961546-265554255552

Welcome to the Factorio Assembly Calculator. This loof will help you make efficient factories in Factorio by Nelling you how many Machines you need to creft items. To use this calculator, follow these instructions.

Near the top of this page, choose File > Make a copy... to copy this spreadsheet into your own Geogle account. If this option is grayed out, first sign in to Google (top right).

2. You should now be able to make changes to your own copy of this Spreadsheet. Click the "Atems" ab at the bottom. This is a sheet of all crafting recipes in the game. Click the "instructions" tab to come back here.

3. In the "Items" sheet, click on an item you want to assemble, such as "Sience Pack 2". This will select it.

Near the top, choose the menu Pactorio > Assembly for Selected item. You will need to give the acript permission to run.

5. Fill out the information such as how many you want to make in how much time. Leave it blank for the defaults.

This will take you to a new sheet called "Calculations" and break down all of the requirements to make them in the given time. This will also tell you how many Machines each one will take.

Try cut the other menus. "Ratios for Selected Item" will provide ratios between items and their ingredients. "Recipes using Selected Item" will tell you what other items have that item as their ingredient. You can also switch the Machines here and it will update the "Items" list.

You can customize the "items" list to fit your needs. For example if you have Speed modules on certain items you can adjust the "Speed x" value.

Feedback? Please comment on the forum post

Raw Materials Stone															
	Qty T	2			Machine 1 Electric Mining Drill										
Coal Iron Ore	1	2			1 Electric Mining Drill 1 Electric Mining Drill										
Copper Ore	1	2	A LONG AND A 11		1 Electric Mining Drill	0.4.									
Uranium Ore Raw Wood	1	2	1 x Sulfuric Acid		1 Steel Axe - Tree	- Sulfuric Acid is n	not accurate								
Water Crude Oil	1200	1			1 Offshore Pump 1 Pumpjack 1.0/s										
		1	have directed												
ntermediate Products Nood	Qty T	0.5	Ingredients 1 x Raw Wood	0.7	5 Assembling machine 2										
Iron Plate	1	3.5	1 x Iron Ore 1 x Copper Ore		1 Stone Furnace 1 Stone Furnace										
Copper Plate Steel Plate	1	17.5	5 x Iron Plate		1 Stone Furnace										
Iron Stick Iron Gear Wheel	2	0.5	1 x Iron Plate 2 x Iron Plate	0.7	75 Assembling machine 2 75 Assembling machine 2										
Electronic Circuit	1	0.5	1 x Iron Plate 3 x Conner Cable	0.7	75 Assembling machine 2										
Advanced Circuit	1	6	2 x Plastic Bar 2 x Electronic Circuit 4 x Copper Cable	0.7	75 Assembling machine 2										
	1		2 x Electronic Circuit 4 x Copper Cable 20 x Electronic Circuit												
Processing Unit	1		2 x Advanced Circuit	0.7	75 Assembling machine 2										
Engine Unit	1	10	2 x Pipe 1 x Steel Plate 1 x Iron Gear Wheel	0.7	75 Assembling machine 2										
Electric Engine Unit	1		1 x Steel Plate 1 x Iron Gear Wheel 2 x Electronic Circuit		75 Assembling machine 2										
Electric Engine Unit		10	1 x Engine Unit 15 x Lubricant	0.7	rs Assembling machine 2										
Flying Robot Frame	1	20		0.7	75 Assembling machine 2										
			3 x Electronic Circuit 1 x Electric Engine Unit 2 x Battery												
Copper Cable	2	0.5	1 x Copper Plate	0.7	75 Assembling machine 2 75 Assembling machine 2										
Science Pack 1	1		1 x Copper Plate 1 x Iron Gear Wheel												
Science Pack 2	1	8	1 x Transport Belt 1 x Inserter 1 x Advanced Circuit		75 Assembling machine 2 75 Assembling machine 2										
Science Pack 3	1	12	1 x Advanced Circuit 1 x Engine Unit 1 x Electric Mining Drill	0.7	75 Assembling machine 2										
Military Science Pack	2	10	1 x Piercing Rounds Magazine	0.7	75 Assembling machine 2										
			1 x Grenade 1 x Gun Turret												
Production Science Pack	2	14	1 x Electric Engine Unit 1 x Electric Fumace		75 Assembling machine 2										
High Tech Science Pack	2	14	1 x Battery 3 x Processing Unit	0.7	75 Assembling machine 2										
Heavy Oil	10		1 x Speed Module 30 x Copper Cable		1 Advanced Oil processing										
Heavy OI	45		50 x Water 100 x Crude Oil		1 Advanced Oil processing 1 Advanced Oil processing										
		5	50 x Water 100 x Crude Oil												
Petroleum Gas	55	5	50 x Water 100 x Crude Oil		1 Advanced Oil processing										
Lubricant Sulfur	10	1	10 x Heavy Oil 30 x Water 30 x Petroleum Gas	1.2	25 Chemical plant 25 Chemical plant										
Sulfuric Acid	50	,	30 x Petroleum Gas 1 x Iron plate		25 Chemical plant										
			1 x Iron plate 5 x Suffur 10 x Water												
Plastic Bar	2	1	1 x Coal 20 x Petroleum Gas		25 Chemical plant										
Uranium-235 Uranium-238	0.007	10	10 x Uranium Ore 10 x Uranium Ore	0.7	75 Centrifuge 75 Centrifuge										
Uranium-238 Explosives	0.993	10	10 x Uranium Ore 1 x Coal 1 x Sulfur 10 x Water		75 Centrifuge 25 Chemical plant										
			i x oluftur 10 x Water												
Battery	1	5	1 x Iron Plate 1 x Copper Plate 20 x Sulfuric acid	1.2	25 Chemical plant										
Solid Fuel	1	3	10 x Light Oil	1.2	25 Chemical plant										
Empty Barrel Low Density Structure	1			0.7	75 Assembling machine 2 75 Assembling machine 2										
			10 x Steel Plate 5 x Copper Plate 5 x Plastic Bar												
Rocket Fuel Nuclear Fuel	1	30	10 x Solid Fuel	0.7	75 Assembling machine 2 75 Assembling machine 2										
Rocket Control Unit	1		1 x Uramium-235 1 x Rocket Fuel 1 x Processing Unit		75 Assembling machine 2										
Notwel Control Unit Satellite	1		1 x Processing Unit 1 x Speed Module 100 x Low Density Structure		75 Assembling machine 2										
And a second difference of the second differen	1	5	1 x Speen Noolae 100 x Low Density Structure 100 x Solar Panel 100 x Solar Panel 100 x Accumulator 5 x Radar 100 x Processing Unit 50 x Rocket Fuel	0.7											
			5 x Radar 100 x Processing Unit												
Uranium Fuel Cell	10	10		0.7	75 Assembling machine 2										
			1 x Uranium-235 19 x Uranium-238												
Logistics	Qt- *	lime	Ingredients	Spearl -	Machine										
Wooden Chest	1	0.5	4 x Wood	0.7	75 Assembling machine 2										
Iron Chest Steel Chest	1	0.5	8 x Iron Plate 8 x Steel Plate	0.7	75 Assembling machine 2 75 Assembling machine 2										
Storage Tank	1	3	20 x Iron Plate 5 x Steel Plate	0.7	75 Assembling machine 2										
Transport Belt	2	0.5	1 x Iron Plate		75 Assembling machine 2										
Fast Transport Belt	1	0.5	1 x Transport Belt 5 y Iron Gear Wheel		75 Assembling machine 2										
Express Transport Belt	1	0.5	1 x Fast Transport Belt 10 x Iron Gear Wheel	0.7	75 Assembling machine 2										
Underground Belt	2		20 x Lubricant 5 x Transport Belt 10 x Iron Plate	0.7	75 Assembling machine 2										
Fast Underground Belt	2	2	10 x Iron Plate 2 x Underground Belt 40 x Iron Gear Wheel		75 Assembling machine 2										
Express Underground Belt	2	2	40 x Iron Gear Wheel 2 x Fast Underground Belt		75 Assembling machine 2										
			2 x Fast Underground Belt 80 x Iron Gear Wheel 40 x Lubricant												
Splitter	1	1	4 x Transport Belt 5 x Iron Plate 5 x Electronic Circuit	0.7	75 Assembling machine 2										
			5 x Electronic Circuit 1 x Splitter 10 x Iron Gear Wheel 10 x Electronic Circuit	0.7	75 Assembling machine 2										
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		2	10 x Electronic Circuit		75 Assembling machine 2										
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Express Splitter	1	2	1 x Fast Splitter 10 x Iron Gear Wheel 10 x Advanced Circuit 80 x Lubricant	0.7											
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Express Splitter Burner Inserter Inserter	1	0.5	1 x Fast Spilter 10 x Iron Gear Wheel 10 x Advanced Circuit 80 x Lubricant 1 x Iron Plate 1 x Iron Gear Wheel 1 x Iron Gear Wheel 1 x Ton Gear Wheel 1 x Ton Gear Wheel	0.7											
Long Handed Inserter	1	2 0.5 0.5	1 x Farat Splitter 10 x Iron Gear Wheel 10 x Advanced Circuit 80 x Lubricant 1 x Iron Gear Wheel 1 x Iron Gear Wheel 1 x Iron Plate 1 x Iron Plate 1 x Iron Rear Wheel 1 x Iron Plate 1 x Iron Plate 1 x Iron Plate	0.7	75 Assembling machine 2 75 Assembling machine 2										
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Express Bplitter Burner Inserter Inserter Fast Inserter Filter Inserter Filter Inserter Filter Inserter Filter Stack Inserter Filter Stack Inserter	1 1 1 1 1 1 1 1 1 1 1 1 1 2	2 05 05 05 05 05 05 05 05 05	1 × Fais Spitter 10 × Ian Galar Meal 20 × Lance Team 20 × Lance Team 20 × Lance Team 21 × Iano False 14 × Iano False 1	0.7 0.7 0.7 0.7 0.7 0.7 0.7	Assembling machine 2										
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Roboport		1	5	45 x Steel Plate 45 x Iron Gear Wheel 45 x Advanced Circuit	0.75 Assembling machine 2									
Arithmetic Combinator			0.6	5 x Copper Cable 5 x Electronic Circuit	0.75 Assembling machine 2									
Decider Combinator				5 x Copper Cable	0.75 Assembling machine 2									
Constant Combinator		÷	0.5	5 x Electronic Circuit 5 x Copper Cable 2 x Electronic Circuit 2 x Stone	0.75 Assembling machine 2									
Stone Brick		1	3.5	2 x Stone	1 Stone Furnace									
Concrete		10	10	5 x Stone Brick 1 x Iron Ore 100 x Water 10 x Concrete	0.75 Assembling machine 2									
Hazard Concrete Refined Concrete		10	0.25	10 x Concrete 20 x Concrete	0.75 Assembling machine 2 0.75 Assembling machine 2									
reated Concrete		1.0	15	20 x Concrete 8 x Iron Stick 1 x Steel Plate 100 x Water	u.r.u. Assembling machine 2									
Refined Hazard Concrete		10	0.25	100 x Water 10 x Refined Concrete	0.75 Assembling machine 2									
Landfil Cliff Explosives			0.5	20 x Stone 10 x Explosives	0.75 Assembling machine 2 0.75 Assembling machine 2									
Call Expressives		1	8	1 x Explosives 1 x Grenade 1 x Empty Barrel	0.75 Assembling machine 2									
Red Wire		1	0.5	1 x Electronic Circuit 1 x Conner Cable	0.75 Assembling machine 2									
Green Wire		1	0.5	1 x Electronic Circuit	0.75 Assembling machine 2									
Lamp		1	0.5	1 x Iron Plate 3 x Iron Stick 1 x Electronic Circuit	0.75 Assembling machine 2									
Programmable Speaker		1	2	1 x Electronic Circuit 5 x Iron Plate	0.75 Assembling machine 2									
				1 x Electronic Circuit 5 x Iron Plate 5 x Copper Cable 4 x Electronic Circuit										
Production	Qty	, п	me	Ingredients	Speed x Machine									
Iron Axe		1	0.5	Ingredients 3 x Iron Plate 2 x Iron Stick	0.75 Assembling machine 2									
Steel Axe		1	0.5	5 x Steel Plate	0.75 Assembling machine 2									
Repair Pack			0.5	2 X Iron Gear Wheel	0.75 Assembling machine 2									
Boiler		- N.	0.5	1 v Stone Fumane	0.75 Assembling machine 2									
Steam Engine		1	0.5	5 x Pipe 10 x Iron Plate 8 x Iron Gear Wheel	0.75 Assembling machine 2									
Steam Turbine		1	0.5	8 x Iron Gear Wheel 50 x Iron Gear Wheel 50 x Copper Plate 20 x Pipe	0.75 Assembling machine 2									
Solar Panel				50 x Copper Plate 20 x Pipe	0.75 Annual in a sublish 0									
Solar Panel		1	10	5 x Copper Plate 5 x Steel Plate 15 x Electronic Circuit	0.75 Assembling machine 2									
Accumulator		1	10	2 x Iron Plate 5 x Battery	0.75 Assembling machine 2									
Nuclear Reactor		1	8	500 x Concrete 500 x Steel Plate 500 x Advanced Circuit 500 x Copper Plate	0.75 Assembling machine 2									
				500 x Advanced Circuit 500 x Copper Plate										
Heat Exchanger		1	3	10 x Steel Plate 100 x Copper Plate 10 x Pine	0.75 Assembling machine 2									
Heat Pipe		1	1	10 x Steel Plate 20 x Conner Plate	0.75 Assembling machine 2									
Burner Mining Drill		1	2	1 x Stone Fumace 3 x Iron Plate 3 x Iron Gear Wheel	0.75 Assembling machine 2									
Electric Mining Drill		1	2	3 x Iron Gear Wheel 10 x Iron Plate	0.75 Assembling machine 2									
			_	10 x Iron Plate 5 x Iron Gear Wheel 3 x Electronic Circuit										
Offshore Pump		1	0.5	1 x Pipe 1 x Iron Gear Wheel	0.75 Assembling machine 2									
Pumpjack		1	5	10 x Pipe 5 x Steel Pinto	0.75 Assembling machine 2									
				10 x Pipe 5 x Steel Plate 10 x Iron Gear Wheel 5 x Electronic Circuit										
Stone Fumace Steel Fumace		1	0.5	5 x Stone	0.75 Assembling machine 2 0.75 Assembling machine 2									
Steel Furnace Electric Furnace		1	3	6 x Steel Plate 10 x Stone Brick 10 x Steel Plate	0.75 Assembling machine 2 0.75 Assembling machine 2									
			5	10 x Steel Plate 10 x Stone Brick 5 x Advanced Circuit										
Assembling Machine 1		1	0.5	9 x Iron Plate 5 x Iron Gear Wheel 3 x Electronic Circuit	0.75 Assembling machine 2									
Assembling Machine 2		1	0.5	3 x Electronic Circuit 1 x Assembling Machine 1	0.75 Assembling machine 2									
-				1 x Assembling Machine 1 9 x Iron Plate 5 x Iron Gear Wheel 3 x Electronic Circuit										
Assembling Machine 3		1	0.5	2 x Assembling Machine 2 4 x Record Modulo	0.75 Assembling machine 2									
Oil Refinery		1	8	10 x Pipe 15 x Steel Plate	0.75 Assembling machine 2									
				10 x Pipe 15 x Steel Plate 10 x Stone Brick 10 x Stone Brick 10 x Iron Gear Wheel 10 x Electronic Circuit										
Chemical Plant		1	5	10 x Electronic Circuit 5 x Pipe	0.75 Assembling machine 2									
				5 x Pipe 5 x Steel Plate 5 x Steel Plate 5 x Electronic Circuit 100 x Advanced Circuit 100 x Advanced Circuit 100 x Advanced Circuit										
Centrifuge		1	4	100 x Concrete	0.75 Assembling machine 2									
				100 x Advanced Circuit 100 x Iron Gear Wheel										
Lab		1	2	10 x Iransport Delt	0.75 Assembling machine 2									
Beacon		1			0.75 Assembling machine 2									
				10 x Steel Plate 20 x Electronic Circuit 20 x Advanced Circuit										
Speed Module		1	15	10 x Copper Cable 5 x Electronic Circuit 5 x Advanced Circuit	0.75 Assembling machine 2									
Speed Module 2		1	30	4 x Speed Module 5 x Advanced Circuit	0.75 Assembling machine 2									
Speed Module 3		1			0.75 Assembling machine 2									
				5 x Speed Module 2 5 x Advanced Circuit 5 x Processing Unit										
Efficiency Module		1	15	5 x Electronic Circuit 5 x Advanced Circuit	0.75 Assembling machine 2									
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Efficiency Module 3		1	60	5 x Processing Unit 5 x Efficiency Module 2 5 x Advanced Circuit 5 x Processing Unit	0.75 Assembling machine 2									
Productivity Module		1	16	5 x Processing Unit	0.75 Assembling machine 2									
Productivity Module 2		1	30	5 x Electronic Circuit 5 x Advanced Circuit 4 x Productivity Module	0.75 Assembling machine 2									
				4 x Productivity Module 5 x Advanced Circuit 5 x Processing Unit										
Productivity Module 3		1	60	5 x Productivity Module 2 5 x Advanced Circuit 5 x Processing Unit	0.75 Assembling machine 2									
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Combat Pistol	Qty	/ Ti	me 5	Ingredients 5 x Iron Plate 5 x Copper Plate	Speed x Machine 0.75 Assembling machine 2									
Submachine Gun		1	10	5 x Copper Plate 10 x Iron Plate	0.75 Assembling mechine 2									
		1	_	10 x Iron Plate 5 x Copper Plate 10 x Iron Gear Wheel 5 x Wood										
Shotgun		1		5 x Wood 15 x Iron Plate 10 x Copper Plate 5 x Iron Gear Wheel	0.75 Assembling machine 2									
Combat Shotgun		1	10	5 x Iron Gear Wheel 10 x Wood	0.75 Assembling machine 2									
				10 x Copper Plate 15 x Steel Plate										
Rocket Launcher		1	10	5 x Iron Gear Wheel 10 x Wood 10 x Copper Plate 15 x Steel Plate 5 x Iron Gear Wheel 5 x Iron Gear Wheel 5 x Exception Circuit 5 x Steel Plate 10 x Non Gear Wheel 10 x Non Gear Wheel	0.75 Assembling machine 2									
Flamethrower		1	10	5 x Electronic Circuit 5 x Steel Plate	0.75 Assembling machine 2									
Land Mine		4	5	10 x Iron Gear Wheel 1 x Steel Plate 2 x Explosives	0.75 Assembling machine 2									
Firearm Magazine		1			0.75 Assembling machine 2									
Piercing Rounds Magazine		1	3	5 x Copper Plate 1 x Steel Plate 1 x Firearm Magazine	0.75 Assembling machine 2									
Uranium Rounds Magazine		1	10	1 x Firearm Magazine 1 x Piercing Rounds Magazin 1 x Uranium-238	0.75 Assembling machine 2									
Shotgun Shells		1	3	2 x Iron Plate 2 x Copper Plate	0.75 Assembling machine 2									
		1	8	2 x Copper Plate 5 x Copper Plate 2 x Steel Plate 2 x Stotgun Shells	0.75 Assembling machine 2									
Piercing Shotgun Shells		1	8	2 x Shotgun Shells 2 x Steel Plate	0.75 Assembling machine 2									
Piercing Shotgun Shells				2 x Steel Plate 2 x Plastic Bar 1 x Explosives										
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Abdram A A second Abdram	Power Armor MK2	1	25 5 x Speed Module 3 5 x Efficiency Module 3	0.75	Assembling machine 2										
			40 x Steel Plate 40 x Processing Unit												
Image <th< td=""><td></td><td>1</td><td>5 x Steel Plate 1 x Advanced Circuit</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>		1	5 x Steel Plate 1 x Advanced Circuit												
Image <th< td=""><td>Portable Fusion Reactor</td><td>1</td><td>10 250 x Processing Unit</td><td>0.75</td><td>Assembling machine 2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>	Portable Fusion Reactor	1	10 250 x Processing Unit	0.75	Assembling machine 2										
Martial Mar	Energy Shield	1	10 10 v Steel Plate												
Ain Join Source 1 <	Energy Shield MK2	1	10 10 x Processing Unit	0.75	Assembling machine 2										
And a	Battery (Armour)	1	10 10 x Steel Plate	0.75	Assembling machine 2										
in a contract of a	Battery MK2	1		0.75	Assembling machine 2										
			10 x Battery (Armour)												
			1 x Processing Unit 5 x Laser Turret												
Sealar 1	Discharge Defense	1	5 x Processing Unit	0.75	Assembling machine 2										
	Exoskeleton	1	10 20 x Steel Plate 10 x Processing Unit	0.75	Assembling machine 2										
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non all constrained in a bit humanitation of the set of	r waantal Poboport		40 x Iron Gear Wheel 20 x Steel Plate	0.75	Associating machine 2										
	Personal Roboport MK2	1	20 5 x Personal Roboport	0.75	Assembling machine 2										
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Atter Tunt 1 0	Flamethrower Turret	1	15 x Iron Gear Wheel 10 x Pine	0.75	Assembling machine 2										
Read 1 6.5 5.8 0.7 Austinguarding 0.7	Artillery Turret	1	40 60 x Steel Plate 60 x Concrete 40 x Iron Gear Wheel	0.75	Assembling machine 2										
Redard Is 1 2 0.05 stan Page 0.75 Austring matched 0.05 stan Page 0.05 stan Page <td< td=""><td>Radar</td><td>1</td><td>0.5 10 x Iron Plate 5 x Iron Gear Wheel</td><td>0.75</td><td>Assembling machine 2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	Radar	1	0.5 10 x Iron Plate 5 x Iron Gear Wheel	0.75	Assembling machine 2										
Abs/Info: Diffe: Diffe: <thdiffe:< th=""> <thdiffe:< th=""> <thdiffe:<< td=""><td>Rocket Silo</td><td>1</td><td>30 1000 x Steel Plate 1000 x Concrete 100 x Pipe</td><td>0.75</td><td>Assembling machine 2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></thdiffe:<<></thdiffe:<></thdiffe:<>	Rocket Silo	1	30 1000 x Steel Plate 1000 x Concrete 100 x Pipe	0.75	Assembling machine 2										
$ \begin{array}{ $	Rorled Part	1	200 x Electric Engine Unit	1	Rocket Silo										
Road 1 1 1 Real Biol			10 x Rocket Fuel												
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Base Society So	Advanced Circuit (bant)		2 x Electronic Circuit (hard) 4 x Plastic Bar	0.75	Assembling machine 2										
incloar/Intra/Int/ iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii			2 x Iron Dista	0.75	Assembling machine 2										
Pape Deg 1 5.2 x Son Plate 0.73 Ausenting machina Degres Unit Page 1 1.2 x Page Page 1.2 x Page Page Page 1.2 x Page Page Page Page Page Page Page Page				0.75	Assembling machine 2										
Explosite Unit Quart 1 2 2 x Pop (hod) homoshow 0.73 Austending sucches 2 Assenting Machine 1 (hod) Assenting Machine 1 (hod) S 1 Ecolor Component (hod) S															
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Bectic Mining Dit (Aud) 1 2 29 vice Rate Meet Nate	Assembling Machine 1 (hard)	1	0.5 9 x Iron Plate 5 x Iron Gear Wheel (hard)	0.75	Assembling machine 2										
S x last course remain (many) S x last course remain (many)	Electric Mining Drill (hard)	1	2 20 x Iron Plate	0.75	Assembling machine 2										

Eact	orio Assembling Calcul	latione						
Faci	Sho Assembling Calcul	auons						
Calculat	on results will be printed here.							
Time to	nake: 2 seconds							
1 x Elect	ric Mining Drill (hard) (1.33 x Assembling	machine 2)						
	20 x Iron Plate (35 x Stone Furnace)							
	20 x Iron Ore (20 x Electric Minir	ng Drill)						
	10 x Iron Gear Wheel (hard) (3.33 x Asse	embling machine 2)						
	40 x Iron Plate (70 x Stone Furn	ace)						
	40 x Iron Ore (40 x Elec	ctric Mining Drill)						
	5 x Electronic Circuit (hard) (1.67 x Assen	mbling machine 2)						
	10 x Iron Plate (17.5 x Stone Fur	rnace)						
	10 x Iron Ore (10 x Elec	ctric Mining Drill)						
	50 x Copper Cable (8.33 x Asser	mbling machine 2)						
	25 x Copper Plate (43.7	75 x Stone Furnace)						
	25 x Copper O	ore (25 x Electric Mining Drill)						
Total:								
1 x Elect	ric Mining Drill (hard) (1.33 x Assembling	machine 2)						
	Plate (122.5 x Stone Furnace)							
70 x Iron	Ore (70 x Electric Mining Drill)							
10 x Iror	Gear Wheel (hard) (3.33 x Assembling m	nachine 2)						
	ronic Circuit (hard) (1.67 x Assembling ma							
50 x Cop	per Cable (8.33 x Assembling machine 2))						
25 x Cor	per Plate (43.75 x Stone Furnace)							