

GULLIVER Mini v1.2 by T Bone

Building & Playing Odd-Sized Creatures in GURPS 4e

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Building Odd-sized Characters

The five-step basics

GURPS 4e offers tools to build odd-sized characters, with additional details in **BT**62-64 and **F**50-51, but gaps remain in the steps. Here are five steps that cover most designs:

1. Choose height. Note *height multiple* (HM): the multiple of height to the human-normal 2 yards (e.g., 0.5 if 1 yard; 1.5 if 3 yards).
2. Set SM based on height (\rightarrow **B19**). Cost of SM is 0.
3. Choose *starting* ST, HP (usually same as ST), DR, and weight, appropriate for a SM 0 (human-sized) version.
4. Multiply starting ST, HP, and DR by HM. Multiply starting weight by *cube* of HM.
5. Consider optional extras (below). Buy final stats normally (but apply -10% cost of ST and HP per SM above 0, max -80%).

Miscellaneous effects included in SM

- **Reach:** Literal reach: 1 yard x HM. Combat Reach: \rightarrow **B402**.
- **Sustenance:** Multiply air, water, and food requirements by the square of HM. (\rightarrow **BT**63 for more on meal size and frequency.)

Notes on non-humanoids

- **Measurements:** For most non-humanoids, replace height with length (roughly head to hind foot; ignore long neck or tail).
- **Shape:** A round or boxy shape modifies SM for TH purposes only (\rightarrow **B19**), not for stat modification purposes as described here.
- **Hexes:** Hex size for creatures is roughly HM squared, halved for standing humanoids and the like. Round up to 1 hex unless tiny.

Working backward

To start with an odd-sized design (such as a real animal): Estimate SM from known height/length or weight. Estimate ST and HP as either **a**) HM x reasonable starting ST and HP, or **b**) twice cube root of weight. Adjust ST and HP as desired.

Optional Extras

There's no *default change* for the stats below. Suggested *options*:

- **ST:** +5% ST per SM above 0, for large creatures' bulky builds.
- **IQ:** \rightarrow **BT**63 for suggestions related to small creatures.
- **HT:** -1 HT per full three SM above 0, for difficulty of immune response, nutrient and waste transport, etc. in huge bodies.

Size and agility-related stats

B19 covers power and mass with a broad suggestion to modify BM. The below options add more detail to DX, BS, and BM, for the *assumed, typical* power and mass of a given size.

- **DX:** Halve SM (round *down*); subtract that from DX.
- **BS:** The above DX mod affects BS. *In addition*, halve SM (round *up*); subtract that x 0.25 from BS (\rightarrow **B17**). Min BS = 1.
- **BM:** Add [SM + above DX mod + 2]. Look up total in the SM column of SM Table (\rightarrow **B19**). Read *Yards* for the SM as *suggested Move*, before special considerations (four legs, posture, etc.).

To approach this suggested Move, buy BM (\rightarrow **B17**) or Enhanced Move (\rightarrow **B52**, though this better reflects adaptations like four legs, not size and power). However, in non-humans or supers in particular, Move can be just about anything; adjust Move *freely*!

BM cheat: For SM -6 to +6 or so, -1 BM per SM below 0, +2 BM per SM above 0, gives an easy approximation of suggested Move.

- **Net effects:** +1 DX, net +0.5 BS per two SM below 0; opposite for SM above 0. Move roughly scales with the square root of HM.

Big Option: Power and Mass

The below *replaces* the preceding agility-related optional extras. It addresses *specific* power-to-mass ratio (PMR), not just for size but for *any* unusual power or mass. It's very optional; ignore it if you don't want the effects, or if your design already reflects such effects.

Power, mass, and agility-related stats

Calculate *Agility* as follows:

1. PMR = BL x 10 / naked body mass. (*Don't* include Lifting ST in BL for this purpose.)
2. Find Agility on the Agility Table. (Round PMR down: PMR 1.3 becomes PMR 1, Agility 0.)

Agility is *not* a stat; it only suggests mods to DX, BS, and BM. Adjust these as follows:

- **DX:** Buy added DX equal to Agility.
- **Athletic-only option:** Buy DX for full-body actions (and effect on BS) only; this has no effect on missile TH or fine tasks per High Manual Dexterity (\rightarrow **B59**). When in doubt on whether to apply this DX, halve it (round favorably). Appropriate PMR is a prerequisite for purchase. Cost: ±15 per ±1.
- **BS:** The above DX mod affects BS. *In addition*, buy added BS equal to Agility x 0.25. Min BS = 1.
- **BM:** Adjust per optional extras, but using [SM + Agility + 2].
- **Net effects:** +1 DX, net +0.5 BS per rough doubling of PMR; opposite effect per rough halving of PMR. Move roughly scales with (HM x square root of PMR). Extend the Table's progression in either direction for extreme PMR (such as in supers).

Agility Table	
PMR	Agility
100	+6
50	+5
20	+4
10	+3
5	+2
2	+1
1	±0
0.5	-1
0.2	-2
0.1	-3
0.05	-4
0.02	-5
0.01	-6

Gaming Odd-Sized Creatures

SM in melee combat

- Use relative SM (difference in attacker and target SM) as a bonus on the smaller creature's melee TH and a penalty on the larger creature's melee TH. Treat hit location TH mods as additional relative SM mods (e.g., the -2 TH leg of a SM +3 Giant is a net SM +1 target). Cap the final melee TH mod for SM at +4.
- Very small size can offer additional combat benefits (\rightarrow **P76**).
- For TH purpose, treat target SM as no smaller than weapon SM – typically, weapon width. For example, to slap a fly, base target SM on the width of a hand, not the bug's much tinier SM.

Low-ST damage

As an optional way to handle damage rolls for scores of ST 5 or lower, roll damage for ST 10 (*thr 1d-2, sw 1d*) and multiply by character ST/10. Round to the nearest point.

Skill use

Apply a -1 penalty per SM difference between character SM and ideal SM for a task (controlling mount/vehicle, picking locks, pickpocketing, making tiny things, etc.). **F137** suggests *doubling* this penalty when using tools or weapons designed for a specific SM.

That's All!

The above are simple but thorough tools to build size and realistic power-to-mass effects into designs. Remember that it's all about *suggestions*, to be bought normally *if desired*. (Your design may *already* reflect some suggestions, such as high DX in a small PC, requiring no additional mods.) Roughly following the suggestions will inject nicely consistent stats and performance capabilities into designs of all shapes and sizes, but every modification is *your call*.

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The Mini Bonus Page v1.2 by T Bone

Designer's notes, examples, and templates

What's GULLIVER?

An old, ~~out~~ made fan-crafted **GURPS** expansion exploring many topics, mostly dealing with character/creature design and physical performance. "Mini" marks **GULLIVER**'s first update for **GURPS** 4e, as well as a shift to a narrow focus: size and related topics alone. Other topics from the old work, if updated and re-released, will appear under other names.

See more at www.gamesdiner.com/gulliver.

What's official?

Mini's basics are mostly 4e canon, though multiplying ST by HM is only implied in **B**, with support from **BT** and **F**. Relative SM as a skill mod and a TH mod is old **GULLIVER** stuff, now reflected in 4e (the latter as an official option in **GURPS** FAQs).

Conversely, Mini's optional extras, PMR rules, multiplying DR by HM, SM to hex conversion, low-ST damage, and 'large weapon SM vs small target SM' are *non*-canon original rules.

Mass? Weight? PMR? Encumbrance?

The optional extras' agility suggestions and the PMR rules are two versions of the same thing. The difference: the former assumes a "typical" power-to-mass ratio based on a generalization from SM, while the latter deals with the actual ratio.

That's all talk of *mass*. Like **B**, Mini assumes that creatures handle their body *weight* just fine, without encumbrance from that weight. For carried *items*, use standard **GURPS** encumbrance rules.

Lifting ST option: While not important to most designs or to Mini's physical performance rules, the below is a realistic option for many designs, especially large creatures.

On top of the optional extras' suggested ST boost for large SM, buy yet more ST as Lifting ST (\rightarrow **B65**) for natural modifications that aid lifting, carrying, pushing, pulling, and slow pressure, but not "quick" uses of ST (including BL for PMR purposes). Guidelines for this additional ST bought as Lifting ST:

- **for SM:** +10% per full or partial 3 levels above SM 0, for structural changes including thick bones.
- **for load-bearing design:** +10% (or more for magic and high-tech). Good for a Dwarf or draft animal.
- **for multiple legs:** +10% for 3 to 5 legs, +20% for 6 to 7 legs, +30% for 8+ legs or no legs.
- **for splay-legged stance:** -10% or worse.

Carrying ST option: For more realism, change the above into a more limited trait which adjusts ST **only** for carrying, not lifting, pushing, pulling, or pressure. Cost: ±2 per ±1 Carrying ST.

Quick Templates for Odd-Sized Humanoids

description	cost	SM	hgt	HM	lbs.	ST mod	DX mod	HT mod	BS mod	BM mod
Minuscule	[-40]	-6	7"	1/10	0.15	-9 [-90]	+3 [60]	-	+0.75 [15]	-5 [-25]
Minute	[-45]	-5	10"	1/7	0.47	-9 [-90]	+3 [60]	-	+0.5 [10]	-5 [-25]
Diminutive	[-50]	-4	18"	1/4	1.5	-8 [-80]	+2 [40]	-	+0.5 [10]	-4 [-20]
Tiny	[-40]	-3	2'	1/3	4.7	-7 [-70]	+2 [40]	-	+0.25 [5]	-3 [-15]
Mini	[-35]	-2	1 yd	1/2	15	-5 [-50]	+1 [20]	-	+0.25 [5]	-2 [-10]
Small	[-15]	-1	1.5 yd	3/4	47	-3 [-30]	+1 [20]	-	-	-1 [-5]
Large	[59]	+1	3 yd	1.5	480	+6 [54]	-	-	-0.25 [-5]	+2 [10]
Huge	[91]	+2	5 yd	2.5	1500	+12 [96]	-1 [-20]	-	-0.25 [-5]	+4 [20]
Enormous	[165]	+3	7 yd	3.5	4800	+25 [175]	-1 [-20]	-1 [-10]	-0.5 [-10]	+6 [30]
Gigantic	[280]	+4	10 yd	5	15K	+50 [300]	-2 [-40]	-1 [-10]	-0.5 [-10]	+8 [40]
Colossal	[375]	+5	15 yd	7.5	48K	+78 [390]	-2 [-40]	-1 [-10]	-0.75 [-15]	+10 [50]
Titanic	[445]	+6	20 yd	10	150K	+120 [480]	-3 [-60]	-2 [-20]	-0.75 [-15]	+12 [60]

GULLIVER Mini Examples

Design example 1: Big Guy stats

SM +4 humanoid, using only the 5-step basics and optional extras:

- **Basic stats:** First set human-size stats. SM +4 is 10 yards, so HM is 5. Multiply starting ST, HP, and DR by 5, sustenance requirements by $5 \times 5 = 25$, and starting weight by $5 \times 5 \times 5 = 125$. Consider an extra 20% ST for a Giant's build, as well as -1 HT. (Added option from the Bonus Page: *another* +20% Lifting ST or Carrying ST for size-related structural mods like thick bones.)
- **Suggested agility mods:** -2 DX, -0.5 BS (net -1 BS after -2 DX).
- **Suggested Move:** [SM +4, -2 for DX mod, +2] = 4. Look up SM +4 on the SM Table: that suggests Move 10 before other considerations. Adjust BM to around Move 10, as you like.
- **Wrap-up:** Buy all stats normally, with -40% on ST for SM.

Design example 2: Little Guy stats

As above, using SM -1 to demonstrate odd-numbered SM:

- **Basic stats:** SM -1 is 1.5 yards, so HM is 3/4. Multiply human-size ST, HP, and DR by 3/4, sustenance requirements by $3/4 \times 3/4 = \text{about } 0.5$, and starting weight by $3/4 \times 3/4 \times 3/4 = \text{about } 0.4$.
- **Suggested agility mods:** Halve SM and round down to -1; subtract from DX (i.e., buy +1 DX). For BS, halve SM and round up, to get 0: no change to BS (other than the effect from the +1 DX).
- **Suggested Move:** [SM -1, +1 for DX mod, +2] = 2. Look up SM +2 on the SM Table: that suggests Move 5 before other considerations. Adjust BM to around Move 5, as you like.

Design example 3: Using power-to-mass ratio (PMR)

Using the PMR rules, with an athletic SM -2 halfling:

- **Basic stats:** SM -2 is 1 yard, so HM is 1/2. Let's go with ST 6 (BL 7.2) and 14 lbs., a bit powerful and light for this size.
- **Suggested agility mods:** PMR = $7.2 \times 10 / 14 = 5.1$, for Agility +2. That suggests +2 DX, +0.5 BS (net +1 BS after +2 DX).
- **Suggested Move:** [SM -2, +2 for Agility, +2] = 2. Look up SM +2 on the SM Table: that suggests Move 5. Adjust as you like.
- **Note:** The optional extras alone would suggest +1 DX, +0.25 BS, and about Move 3 for a SM -2 creature. The more advanced PMR rules give this athletic fellow some impressive mobility!

Fight example: Big vs small melee combat

A SM +4 Giant fights a SM -1 Dwarf. The difference in SM is 5.

- The Giant takes a -5 on melee TH vs the Dwarf. The Dwarf gains a +4 (not +5; +4 is the cap) on melee TH vs the Giant.
- The Giant's vitals (-3 TH) are effectively a SM +1 target. With a difference in SM of 2, the Dwarf gets a +2 TH vs that target.
- The Giant swings a big SM +1 table at the Dwarf! Treat the target as that larger size, SM +1. The difference in SM between Giant SM +4 and target SM +1 is only 3; the Giant takes only -3 TH.

- These templates are made with the 5-step basics plus optional extras.
- ST cost is reduced for large SM.
- BS mod is *in addition to* the normal effects of DX and HT mods on BS.
- Weight and BM use the noted "cheats" for simplicity (up to -5 BM).
- For more precision, calculate weight as $HM^3 \times 150$ (then modify freely); find suggested Move from SM and set BM to match (more or less).
- For yet more precision, work out agility-related stats from PMR (even for SM 0).
- Remember, all stats are *suggestions*. Final stats are whatever you decree!