



# GULLIVER Mini v1.1 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 BT62-64 and F50-51, but gaps remain in the procedures. 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 (→B19). Cost of SM is 0.
3. Choose *starting* ST, HP (usually same as ST), DR, and weight, appropriate for SM 0 (human-sized) version.
4. Multiply starting ST, HP, and DR by HM. Multiply starting weight by *cube* of HM.  
*Weight cheat: Multiply/divide weight by 3.2 per ±1 SM, or by 10 per ±2 SM.*
5. Consider optional extras (below). Buy final stats normally (with -10% cost of ST & HP per SM above 0, max -80%).

### Miscellaneous included effects of SM

**Reach:** Literal reach: 1 yard x HM. Combat Reach: →B402.

**Sustenance:** Multiply air, water, and food requirements by square of HM. (→BT63 for more on meal size and frequency.)

### Notes on non-humanoids

For most non-humanoids, replace height with length (roughly head to foot of stretched hind leg, ignoring long neck or tail).

A round or boxy shape modifies SM for TH purposes only (→B19), not for stat modification purposes as described here.

Hex size for horizontal creatures is roughly HM squared, halved for humanoids. 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 stats below. Suggested *options*:

**ST:** +5% ST per SM above 0, for large creatures' bulky build.

**IQ:** →BT63 for suggestions related to small creatures.

**HT:** -1 HT per full three SM above 0, for difficulty of nutrient and waste transport, immune response, etc. in huge form.

### 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 (→B17). Min BS = 1.

**BM:** Add [SM + above DX mod + 2]. Look up that total in the SM column of SM Table (→B19). Read *Yards* for that SM as *suggested* Move, before special considerations (four legs, posture, etc.).

To approach suggested Move, buy BM (→B17). Or use Enhanced Move (→B52, though this better reflects adaptations like four legs, not size and power). But in non-humans or supers, 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, is easy and approximates suggested Move.

**Net effects:** +1 DX, net +0.5 BS per two SM below 0; reverse for SM above 0. Move roughly scales with 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 if you don't want the effects, or if your design already reflects the effects.

### Power, mass, & agility-related stats

1. PMR = BL x 10 / naked body mass. (*Don't* include Lifting ST in BL for this purpose.)

2. Find Agility on Agility Table. (Round PMR down: PMR 1.3 becomes PMR 1, Agility 0.)

This Agility is not a stat; it only *suggests* mods to DX, BS, and BM, 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 (→B59). When in doubt on whether to apply this DX, halve it. 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:** Per optional extras, but use [SM + Agility + 2].

**Net effects:** +1 DX, net +0.5 BS per rough doubling of PMR; reverse effect per halving of PMR. Move roughly scales with (HM x square root of PMR). You can extend the Table's progression in either direction, for extreme PMR (such as in supers).

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

Agility Table

## 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., a SM 3 Giant's leg [-2 TH] is a SM 1 target). The final net TH mod for SM may not exceed +4.

Very small size can offer additional combat benefits (→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

The ST damage chart doesn't work so well for ST under 5 or so. If you like, for any low ST, use damage for ST 10 (thr 1d-2, sw 1d); multiply damage roll by character ST/10. Round to nearest point.

### Skill use

Where appropriate, apply a -1 penalty per SM difference between character's SM and ideal SM for task. Examples: controlling mount or vehicle, picking lock, pickpocketing, making armor for small race, 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 v1.1

Designer's notes, examples, and uninvited solicitations

## What's GULLIVER?

An old, ~~nut-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](http://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 is an official option in FAQs). Conversely, the 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 an "expected" power-to-mass ratio based on a generalization from SM, while the latter looks at the actual ratio.

That's all talk of *mass*. Like B, Mini assumes creatures handle 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 boost in ST for large SM, buy yet more ST as Lifting ST (→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 design 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 Packages for Odd-Sized Humanoids

Made with the 5-step basics plus optional extras. ST cost is reduced for large SM. Weight and BM use "cheats" for simplicity (up to -5 BM). For more precision, work out weight from  $HM^3 \times 150$ , and suggested Move from SM. (Or, get agility stats from PMR.)

description	cost	SM	hgt	HM	wgt	ST	DX	HT	BS	BM
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:

First set human-size starting 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 hefty Giant build, as well as -1 HT. (Added option from the Bonus Page: another +20% ST as Lifting ST or Carrying ST for size-related structural mods like thick bones.) Suggested agility mods are -2 DX and -0.5 Basic Speed (total -1 BS after the -2 DX). For Move, add [SM 4, -2 for DX mod, +2] = 4. Look up SM 4 on the SM Table: that suggests Move 10 before other considerations. Set BM to achieve Move 10 if you like.

Buy all stats normally, with -40% on ST for SM.

### Design example 2: Little Guy stats

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

SM -1 is 1.5 yards, so HM is 0.75. Multiply human-size starting ST, HP, and DR by 0.75, sustenance requirements by  $0.75 \times 0.75 =$  about 0.5, and starting weight by  $0.75 \times 0.75 \times 0.75 =$  about 0.4.

Suggested agility mods: For DX, halve SM and round down, to get -1. Subtract this -1 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 +1 DX above). For Move, add [SM -1, +1 for DX mod, +2] = 2. Look up SM 2 on the SM Table: that suggests Move 5 before other considerations. Set BM to achieve Move 5 if you like.

### Design example 3: Agility example

Using the PMR rules, with a SM -2, strong, lithe halfling:

Stats: ST 6; 14 lbs.; BL 7.2.  $PMR = 7.2 \times 10 / 14 = 5.1$ , qualifying for Agility 2. That suggests +2 DX and +0.5 BS (total +1 BS after the +2 DX). For Move, add [SM -2, +2 for Agility, +2] = 2. Look up SM 2 on the SM Table: that suggests Move 5.

Using optional extras alone, not PMR rules, would suggest +1 DX, +0.25 Basic Speed, and a Move of about 3 for a SM -2 creature. But PMR yields different results for this unusually light and powerful specimen. The results are only suggestions – but if you follow them here, this hardcore halfling is ready to race the big folks!

### Melee example 1: mixed sizes

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 max) on melee TH vs the Giant.

The Giant's vitals (-3 TH) are essentially a SM 1 target; with a difference in SM of 2, the Dwarf gets a +2 TH vs that target.

If 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 -3 TH.

### Dilettante Game Design and More

Stay tuned for more at T Bone's Games Diner. It's a site for any RPG fan, with a special nod to incorrigible rules hackers and dilettante designers. There's plenty of GURPS stuff, some d20 fun, forums, polls, comments, and bloggy musings. Your feedback and ideas are welcome!

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