

LIGHTWEIGHT PORTABLE TRANSPORT TOOLS - GROUP WEIGHTED DECISION MATRIX COMPARISON CHART

This is an evaluative comparison of Personal Light Electric Vehicles' (PLEVs) or LPT (lightweight portable transport) tools rated for urban commuting using the Group Average Matrix Evaluation (GAME) system (a term invented by Luc the author). Transport tools are in the left column & factors (considerations) are on the top row. Each factor has a weighting (importance value) which is the average importance number given by participants. For example, participants saw the portability factor as important so gave it high importance numbers with an average of 8.4 (weighting). Speed was seen as less important so the average is just 5.6 (weighting). Each transport tool is given an achievement score which is how well it performs in that factor area. For example, the Urmo with a handle gets an achievement score of 9.5 for the portability factor because it's so light, small & can be pushed by the handle. The achievement score is multiplied by the weighting to produce a weighting x achievement score. So for the Urmo in portability it's 8.4 (weighting) x 9.5 (achievement score) = 79.8 (weighting x achievement score). The overall score for each gadget is the sum total of all weighting x achievement scores. Based on present data in this table the E-TWOW Booster V scooter is the highest scoring transport tool.

| factors (considerations)⇔ | | | UP & DOWN KERBS (or other large obstacles & ledges) | MANUAL USE (rolling freely without motor - to save battery & get exercise!) | VEHICLE CONTROL (precision of steering, ease of riding, stability on smooth surfaces & prevention of vehicle rolling off by itself) | RANGE (distance possible after full charge) | SIZE FOR HANDY STORAGE (when folded) | PORTABILITY (walking around with it - pushing or carrying) | TOP SPEED (how fast it will go) | OFF-ROAD RIDING (rough ground, sand, dirt tracks, mud, grass & so on) | SMOOTHNESS ON NORMAL CITY SURFACE (Factors: Suspension with tire size & material) | | CHARGE TIME (lower weighting because info is highly variable) | MAX RIDER WEIGHT | LIGHTS | MOTOR (watts) | SIZE (see handy storage) | |
|---------------------------|---|-------------|---|---|--|---|--|---|--|--|---|-----------------|---|------------------------|------------|------------------|-----------------------------|--|
| Par | ticipant 1 | M | 10 | 10 | 10 | 10 | 5 | 7 | 5 | 0 | 10 | 10 | 5 | 0 | 0 | NA | NA | |
| Pai | Participant 2 L | | 5 | 9 | 10 | 6 | 8 | 9 | 6 | 2 | 9 | 7 | 2 | 2 | 5 | NA | NA | |
| Par | Participant 3 D | | 5 | 5 | 8 | 8 | 8 | 9 | 8 | 3 | 9 | 7 | 3 | 1 | 2 | NA | NA | |
| Par | ticipant 4 | P | 7 | 8 | 10 | 7 | 9 | 10 | 7 | 2 | 7 | 7 | 3 | 1 | 1 | NA | NA | |
| Par | ticipant 5 | J | 2 | 8 | 10 | 4 | 4 | 7 | 2 | 3 | 5 | 2 | 1 | 1 | 4 | NA | NA | |
| | WEIGHTINGS (AVERAGE IMPORTANCE | | | | | | | | | | | | | | | | | |
| , , | VALUES) (1 to 10) (1 = unimportant, 5 = average, 10 = highly important) | | | 8 | 9.6 | 7 | 6.8 | 8.4 | 5.6 | 2 | 8 | 6.6 | 2.8 | 1 | 2.4 | NA | NA | |
| Transpor | t Gadgets (NA= | not availab | le for purchase | at time of w | ritina) | | | | | | | | | | | | | |
| Cocoa motors | Cocoa motors Walkcar (MTKSR-5) | | | no* | Limited | 7k | Tiny | 2.9 kg | 15kmph | Unsuitable | Front & back | T solid, MP 4 | 1 hour | 80kg | None | | 21.5x34.6x7.4 cm | |
| | Achievement scores | | 0 | 0 | 5 | 0.5 | 10 | 10 | 2.5 | 3 | 2 | 6 | 9 | 6 | 0 | | 5,504.86cm ³ | |
| | Weighting x Achie | | 0 | 0 | 48 | 3.5 | 68 | 84 | 14 | 6 | 16 | 39.6 | 25.2 | 6 | 0 | | Tires about 7cm | |
| | Overall Score ⇒ | 310.3 | Fits into your | backpack li | ke a laptop co | omputer! S | Smooth surfa | ices only. The de | evice stops | when you step | off - an importa | nt safety featu | re. Easy to lea | ırn. | | | | |
| Epikgo | Premier | | up no, d roll | no | Limited | 19k | small | 14kg | 19kmph | OK | No suspension | T solid, MP 3 | 1-2 hours | 110 kg | Both | 400wx2 | 70x22x23 cm | |
| - | Achievement scores | | 1 | 0 | 3 | 3 | 8.5 | 7 | 4 | 6 | 2 | 7 | 8 | 9 | 10 | | 35 420 cm ³ | |
| | Weighting x Achie | | 5.8 | 0 | 28.8 | 21 | 57.8 | 58.8 | 22.4 | 12 | 16 | 46.2 | 22.4 | 9 | 24 | | Tires 22cm | |
| | Overall Score ⇒ | 324.2 | Top rated how | verboard (fo | ot scooter), s | afety certi | ficates & IP5 | 6 water resistan | ce rating. H | overboards are | fun but not so e | asy to stay on. | Wide path = | unsuitable | for busy a | eas. | | |
| Inventist | lota Trax | | up hop, d roll | no | Limited | 13k | Tiny* | 6.8kg | 12kmph | ок | No suspension | T air, MP 4 | 40 minutes | 81 kg | Front* | 1000w | Approx: 17.8×22×21.5 cm | |
| | Achievement scores | | 6 | 0 | 5 | 1 | 10 | 9.5 | 1 | 7.25 | 4.25 | 2 | 9.5 | 6 | 7 | | approx 8500 cm³ | |
| | Weighting x Achie | | 34.8 | 0 | 48 | 7 | 68 | 79.8 | 5.6 | 14.5 | 34 | 13.2 | 26.6 | 6 | 16.8 | | Tires 20cm | |
| | Overall Score ⇒ 354.3 | | Similar to the | electric wh | eels (eucs) bu | it easier to | learn, more | compact and slo | ower. The o | ption of steppi | ing off to the side | s is an advant | age over the l | Jrmo. | | | | |
| Mellow | Board cruiser | | up 'flick', d roll | Good | Limited | 15k | Tiny | 5.5kg | 40kmph | Unsuitable | No suspension | T solid, MP 5 | 45 mins (fast) | 100kg?* | None | 2000w | 78x25x6cm | |
| - | Achievement scores 1 to 10⇒ | | 6 | 8.5 | 5 | 2 | 9.5 | 9.5 | 10 | 1 | 0 | 5 | 10 | 8 | 0 | | 11 700cm3 (or less) | |

| 9 | Weighting x Achie | | 34.8 | 68 | 48 | 14 | 64.6 | 79.8 | 56 | 2 | 0 | 33 | 28 | 8 | 0 | | Tires 8 or 9cm (two options) |
|-------------|--------------------------------------|-------------|--|---|----------------------------------|-----------------------|------------------|--------------------------------------|-----------------------|--------------------------|--|------------------------|------------------------------|-----------------|-----------------|-------------|---|
| | Overall Score ⇒ | 436.2 | The very important outer, reaction and the period of the p | | | | | | | | | | | | | | |
| Onewheel | Pint | | up 'nudge', d rol | l no | Limited | 10-13k | medium | 10.5kg | 26kmph | Good | No suspension | T air, MP 1 | 50 mins | 110kg | Both | 750w | Size: 22x26.5x68.9 cm |
| | Achievement scores Weighting x Achie | | 4 23.2 | 0 | 3.5 33.6 | 1.5 10.5 | 8 54.4 | 8 67.2 | 6 33.6 | 7.75 15.5 | 4.75 38 | 7 46.2 | 9 25.2 | 9 9 | 10 24 | | 40 169cm³ Tires 26.5cm |
| | Overall Score ⇒ | 380.4 | Smaller more | - | | | | | 00.0 | | 55 | | | • | | | 11100 20.00111 |
| Onewheel | XR | | up 'nudge', d rol | ı no | Limited | 20-30k | medium | 12.5kg | 30kmph | Good | No suspension | T air, MP 1 | 1 hour | 125kg | Both | 750w | Size: 23×29×76 cm |
| | Achievement scores | 1 to 10⇔ | 3.5 | 0 | 3.5 | 6 | 7.5 | 7.5 | 7.5 | 7.75 | 4.75 | 7 | 9 | 10 | 10 | | 50 692cm ³ |
| | Weighting x Achie | | 20.3 | 0 | 33.6 | 42 | 51 | 63 | 42 | 15.5 | 38 | 46.2 | 25.2 | 10 | 24 | | Tires 29cm |
| | Overall Score ⇒ | 410.8 | | | | | | auty is in the si | | | | | | | | | |
| rmo (NA) | no handle | | up no, d roll | | Limited | 20k | V. small | 7kg | 15kmph | OK | No suspension | T solid, MP 3 | 2 hours | 120kg | Yes | 2x900w | Folded size: 18x33.5x34cm |
| | Achievement scores | | 4.5 | 0 | 4 | 3 | 9 | 9 | 2.5 | 6 | 3 | 7 | 7 | 10 | 3 | | 20 502cm³ |
| | Weighting x Achie | | 26.1 | 0 | 38.4 | 21 | 61.2 | 75.6 | 14 | 12 | 24 | 46.2 | 19.6 | 10 | 7.2 | | Tires over 30cm |
| | Overall Score ⇒ | 355.3 | | | | | | | _ | | | | | - | | | Ily someone can revive the i |
| mo (NA) | with optional handle | 4 4 - 40 -> | up & d step | no | Good 6 | 20k 3 | small 8 | 7.7kg | 15kmph | ок | No suspension | T solid, MP 4 | 2 hours | 120kg 10 | Yes | 2x900w | Folded size: 18x33.5x34cm 20 502cm ³ |
| | Achievement scores Weighting x Achie | | 58 | 0 | 57.6 | 21 | 54.4 | 9.5 79.8 | 2.5 14 | 6 12 | 24 | 39.6 | 19.6 | 10 | 7.2 | | Tires over 30cm |
| 200 | Overall Score ⇒ | 397.2 | | • | | | * *** | | | | | | | | | octal wor | kers & tour guides. |
| E | | | | | | | | | | | • | | | | workers, p | ostai woi | kers & tour guides. |
| ectric V | Vheels (ewheel | s) (aka: | "Electric | Unicycle | es" or "E | ucs"): | l akes tin | ne to learn | . Good o | off-road. N | ever push t | o max spe | eed (not s | ate). | | | |
| motion | E20 | | d roll/step | no | Limited | 30k | medium | 13.5kg | 20kmph | OK | suspension | T air, MP 4 | 3.5 hours | 100kg | Both | 900w | Approx: 44×50.7×25.3 cm |
| 1 | Achievement score | s 1 to 10→ | 7.5 | 0 | 3 | 6 | 7.5 | 8.5 | 4 | 5.75 | 5.75 | 2 | 4 | 8 | 10 | | approx 56 439 cm³ |
| | Weighting x Achie | vement → | 43.5 | 0 | 28.8 | 42 | 51 | 71.4 | 22.4 | 11.5 | 46 | 13.2 | 11.2 | 8 | 24 | | Tires 35.56cm |
| | Overall Score \rightarrow | 373 | | el wheel go | ood for begi | nners to l | earn the bas | sics. Ability to | step off to | the sides is a | n advantage ove | er 'hoverboar | ds'. Highly dı | urable, nui | mbers he | re might | not be doing it justice. |
| nmotion | V8 (Solowheel Glide 3) | | up hop/step, d roll/step | no | Limited | 45-50k | Small | 13.8kg | 30kmph | Good | No suspension | T air, MP 4 | 4-5 hours | 120kg | Both | 800w | 54x45x15cm |
| | Achievement scores | | 8 | 0 | 4.5 | 9.5 | 8.5 | 8.5 | 7.5 | 10 | 6.25 | 4 | 2 | 10 | 10 | | 36 450cm³ |
| (-)))) | Weighting x Achie | | 46.4 | 0 | 43.2 | 66.5 | 57.8 | 71.4 | 42 | 20 | 50 | 26.4 | 5.6 | 10 | 24 | | Tires 40cm |
| | Overall Score ⇒ | 463.3 | One of the m | ost popular | ewheels as o | f 2022. Mo | tor switches | off automaticall | y when lifte | d & has retract | table handle. Fron | n the inventor | of ewheels, he | overboards | & the lota | a trax: Sha | ane Chen of Inventist. |
| motion | V8F | | up hop/step, d roll/step | no | Limited | 50-55k | Small | 14.5kg | 35kmph | Good | No suspension | T air, MP 4 | 4-5 hours | 120kg | Both | 1000w | 54x46x15cm |
| • | Achievement score | | 7.5 | 0 | 4.5 | 10 | 8.5 | 8.25 | 9 | 10 | 6.25 | 4 | 2 | 10 | 10 | | 37 260cm ³ |
| | Weighting x Achie | | 43.5 | 0 | 43.2 | 70 | 57.8 | 69.3 | 50.4 | 20 | 50 | 26.4 | 5.6 | 10 | 24 | | Tires 40cm |
| <i>\ 11</i> | Overall Score ⇒ | 470.2 | An upgraded | version of t | he V8 with m | ore power | , range and s | peed as well as | larger footp | lates and side | pads. | | | | | | |
| ngsong | 16S | | up hop/step, d roll/step | no | Limited | 70k | Small | 17.5kg | 35kmph | Good | No suspension | Tair MD / | about 6 hours | 110ka | Both | 1200w | 50.6x46.3x19.6cm |
| ysony | Achievement score | s 1 to 10⇒ | a roll/step | 0 | 4.5 | 10 10 | 8 | 7.5 | 9 | 10 | 6.25 | 4 | 0 | 9 | 10 | 1200W | 45 918cm³ |
| | Weighting x Achie | | 34.8 | Ö | 43.2 | 70 | 54.4 | 63 | 50.4 | 20 | 50 | 26.4 | Ö | 9 | 24 | | Tires 41.7cm |
| 6 | Overall Score ⇒ | 445.2 | Very highly ra | ated wheel 8 | a good size | for beginn | ners. Good re | placement for a | car if you li | ve out in the o | pen country with | rough terrain. | Kingsong s so | eries are kr | nown to be | e among t | he safest of ewheels. |
| | | | UP & DOWN | | VEHICLE | RANGE | SIZE FOR | PORTABILITY | TOP | OFF-ROAD | SMOOTHNESS | | CHARGE | MAX | LIGHTS | | |
| | | | KERBS (or other large | USE (rolling freely | CONTROL (precision of | (distance possible | HANDY STORAGE | (walking around with it - pushing | SPEED (how fast it | RIDING (rough ground, | ON NORMAL CITY SURFACE | of faults, lack of | TIME (suggest you | RIDER WEIGHT | | (watts) | (see handy storage) |
| | | | obstacles & | | steering, ease of | after full charge) | (when | or carrying) | will go) | sand, dirt tracks, | (Factors: Suspension with tire size & material) | need for replacement | give this a lower | | | | |
| fact | ors (consideration | s)⇒ | ledges) | to save battery get | riding, stability on smooth | onargo, | folded) | | | mud, grass & so on) | with the size & material) | parts or | weighting because info is | | | | |
| | | | | exercise!) | surfaces & | | | | | , | | maintenance) | highly variable) | | | | |
| | | | | | prevention of vehicle rolling | | | | | | | T=Tires MP = moving | | | | | |
| | | | | | off by itself) | | | | | | | parts | | | | | |
| | | | | autina th | anks to | the har | ıdles whi | ich allow m | nore cor | trol & con | venience - | vou can e | ven hand | bags o | ff the h | nandle | s. |
| ooters: | : Often the bes | t choice | for comm | iulina u | | | | | | | | , | 9 | | | | - - |
| ooters: | : Often the bes | t choice | for comm | Good | Good | 10k | small | 7.9ka | 15kmph | OK | Front & back | T solid. MP 9 | 2.5 hours | 80ka | None | 150w | Folded size: 96x32x13.5 |
| | : Often the bes | | | | Good | | small | 7.9kg 9 | • | | Front & back | T solid, MP 9 | 2.5 hours | 80kg 6 | None 0 | 150w | |
| | E9 | s 1 to 10⇒ | up & d step | Good | | 10k | | | 15kmph 2.5 14 | OK 4.25 8.5 | | T solid, MP 9 | | | | 150w | Folded size: 96x32x13.5 41 472cm ³ Tires 20cm |

| | | | | | | | | | | | | | | | _ | |
|---------------------|-----------------------------|---|-------------|---------------|-------------|-----------------|------------------|-----------------|-----------------|-------------------|-------------------------------|--|-------------|-------------------------|----------|------------------------------|
| EcoReco | XS | up & d step | OK? | Good | 21k | small | 7.7kg | 21kmph | ok | | T solid, MP 8 | | 100kg | | | Folded size: 104x25x15cm |
| T . | Achievement scores 1 to 10⇒ | 8 | 8 | 8 | 3 | 8.5 | 9.5 | 4.5 | 4.5 | 3.5 | 2 | 2 | 8 | 7 | | 39 000cm³ |
| 1 | Weighting x Achievement ⇒ | 46.4 | 64 | 76.8 | 21 | 57.8 | 79.8 | 25.2 | 9 | 28 | 13.2 | 5.6 | 8 | 16.8 | | Tires 15cm(F) 12.7cm(B) |
| • | Overall Score ⇒ 451.6 | Seems like a go | ood balance | of nortabili | ty and oth | or factors No | t the smoothe | et of ridge the | ough | | | | | | | |
| E-TWOW | GT Sport | up & d step | OK | Good | 50k | medium | 13kg | 46kmph | OK OK | Front & back | T solid, MP11 | 3-4 hours | 100ka | Both | 700w | Folded size: 105x33x14cm |
| L-111011 | Achievement scores 1 to 10⇒ | 6.5 | 5.5 | 8 | 10 | 8 | 8.5 | 10 | 6 | F TOTAL GLOBER | 0 | 4 | 100kg 8 | 10 | 70011 | 48 510cm³ |
| 1 | | | 44 | 76.8 | 70 | | | 56 | | 40 | 0 | | 8 | | | |
| k . | Weighting x Achievement ⇒ | 37.7 | 44 | 76.8 | 70 | 54.4 | 71.4 | 56 | 12 | 40 | U | 11.2 | 8 | 24 | | Tires 20cm |
| ₽ ~—⊚ | Overall Score ⇒ 505.5 | An even quicker | r version o | f the GT belo | ow. | | | | | | | | | | | |
| E-TWOW | Booster GT | up & d step | OK | Good | 40k | medium | 11.9kg | 40kmph | OK | Front & back | T solid, MP11 | 3-4 hours | 100kg | Both | 700w | Folded size: 105x33x14cm |
| 1 | Achievement scores 1 to 10⇒ | 6.5 | 5.5 | 8 | 8 | 8 | 8.75 | 10 | 6 | 5 | Ö | 4 | 8 | 10 | | 48 510cm ³ |
| 1 | Weighting x Achievement ⇒ | 37.7 | 44 | 76.8 | 56 | 54.4 | 73.5 | 56 | 12 | 40 | 0 | 11.2 | 8 | 24 | | Tires 20cm |
| 1 | | | | | | | | | | | | | | | | |
| - | | A more powerfu | | | | | | | | | | | | | | |
| E-TWOW | Booster V | up & d step | OK | Good | 38k | medium | 11.3kg | 38kmph | ок | Front & back | T solid, MP11 | 2-3 hours | 110kg | Both | 500w | Folded size: 97x33x14cm |
| 1 | Achievement scores 1 to 10⇒ | 7 | 6 | 8 | 8 | 8 | 9 | 10 | 6 | 5 | 0 | 6 | 9 | 10 | | 44 814cm³ |
| 1 | Weighting x Achievement ⇒ | 40.6 | 48 | 76.8 | 56 | 54.4 | 75.6 | 56 | 12 | 40 | 0 | 16.8 | 9 | 24 | | Tires 20cm |
| @ | Overall Score ⇒ 509.2 | A slightly quicker version of the Booster Plus S below. | | | | | | | | | | | | | | |
| E-TWOW | Booster plus S | up & d step | OK | Good | 35k | medium | 11kg | 35kmph | OK | Front & back | T solid. MP11 | 2-3 hours | 110ka | Both | 500w | Folded size: 97x33x14cm |
| | Achievement scores 1 to 10⇒ | 7 | 6 | 8 | 7 | 8 | 9 | 9 | 6 | 5 | 0 | 6 | 9 | 10 | | 44 814cm³ |
| ţ | Weighting x Achievement ⇒ | 40.6 | 48 | 76.8 | 49 | 54.4 | 75.6 | 50.4 | 12 | 40 | 0 | 16.8 | 9 | 24 | | Tires 20cm |
| - X | | | | | | | | | | • | • | | • | | | 11103 200111 |
| 9 — 1 | Overall Score ⇒ 496.6 | Tromanable opera and range for each a right econter. For y expensive and act with each econter econter of completely water proof, or don't get eaught in nearly rain. | | | | | | | | | | | | | | |
| EVO | VT5 | up & d step | ОК | Good | 15k | large | 11.5kg | 25kmph | ok | Front suspension | T Front air, Back solid, MP 7 | 4-5 hours | 100kg | Both | 350 | Folded Size: 107x43.5x35cm |
| 7 | Achievement scores 1 to 10⇒ | 6.5 | 6.5 | 8 | 2 | 1.5 | 8.75 | 6 | 6.5 | 5.5 | 4 | 2 | 8 | 10 | | 162 908cm³ |
| 1 | Weighting x Achievement ⇒ | 37.7 | 52 | 76.8 | 14 | 10.2 | 73.5 | 33.6 | 13 | 44 | 6.6 | 5.6 | 8 | 24 | | Tires 20cm |
| k | 000 | | | | | | | | 13 | 44 | 0.0 | 3.0 | Ü | 24 | | Tiles Zocili |
| 2 | Overall Score ⇒ 399 | Look of four in my view, cooled are low owing to large size when related a limited range. | | | | | | | | | | | | | | |
| Gotrax | G1 Glider Folding | up & d step | OK? | Good | 14k | medium | 9kg | 26kmph | Unsuitable | No suspension | T solid, MP 6 | 3 hours | 100kg | Front | 250w | Folded size: 100x36.7x15.9cm |
| 1 | Achievement scores 1 to 10⇒ | 8 | 7.5 | 8 | 2 | 7.5 | 9.25 | 6 | 2 | 1 | 4 | 5 | 8 | 7 | | 59 200cm³ |
| 1 | Weighting x Achievement ⇒ | 46.4 | 60 | 76.8 | 14 | 51 | 77.7 | 33.6 | 4 | 8 | 26.4 | 14 | 8 | 16.8 | | Tires 14cm |
| | Overall Score ⇒ 436.7 | 6.7 Budget scooter - very quick but not good on rough terrrain. Extremely portable and storable because folds very well. | | | | | | | | | | | | | | |
| Inokim | | | | | | | | | | 6 hours | 100ka | Doth | 350w | Folded size: 95x36x25cm | | |
| IIIOKIIII | Light 2 (super) | • | | v. good | | | • | • | | | i air, wip 9 | | | Both | SOUW | |
| 1 | Achievement scores 1 to 10⇒ | 6 | 6 | 9 | 6 | 6 | 8.5 | 9 | 6 | 4.25 | 0 | 0 | 8 | 10 | | 85 500cm ³ |
| 1 | Weighting x Achievement ⇒ | 34.8 | 48 | 86.4 | 42 | 40.8 | 71.4 | 50.4 | 12 | 34 | 0 | 0 | 8 | 24 | | Tires 21.59 |
| | Overall Score ⇒ 451.8 | A well-built, dur | rable scoot | ter designed | with safet | ty in mind - ro | II to start feat | ure, stem loc | k & excellent d | lual drum brakes | offering a shor | t stopping di | istance. No | t verv water | proof (o | nly IPX4 rating). |
| Inokim | Light 2 Max | up & d step | ок | v. good | 32k | medium | 14kg | 35kmph | ок | No suspension | | 7 hours | 100ka | Both | 350w | Folded size: 95x36x25cm |
| | Achievement scores 1 to 10⇒ | 6 | 6 | 9 | 6.5 | 6 | 8.5 | 9 | 6 6 | 4.25 | 1 411, 1111 0 | 0 | · | 10 | 00011 | 85 500cm³ |
| T | Weighting x Achievement ⇒ | 34.8 | 48 | 86.4 | 45.5 | 40.8 | 71.4 | 50.4 | 12 | 34 | | | 8 | | | Tires 21.59 |
| | 4== 0 | 54.0 | 40 | 00.4 | 40.0 | 40.0 | 71.4 | 30.4 | 12 | 34 | U | 0 | Ü | 24 | | 11163 21:59 |
| 4 | Overall Score ⇒ 455.3 | Same as Light 2 | | | | | | | | | | | | | | |
| KUGOO | S1 | up & d step | OK | Good | 25-30k | medium | 11kg | 30kmph | ok | Front & back | Γ solid, MP 11 | 3.5 hours | 120kg | Both | 350w | Folded size: 96x21x33cm |
| i | Achievement scores 1 to 10⇒ | 7 | 6 | 8 | 6 | 7 | 8 | 7.5 | 6 | 5 | 0 | 4 | 10 | 10 | | 66 528cm³ |
| Į. | Weighting x Achievement ⇒ | 40.6 | 48 | 76.8 | 42 | 47.6 | 67.2 | 42 | 12 | 40 | 0 | 11.2 | 10 | 24 | | Tires 20cm |
| ^ € | Overall Score ⇒ 461.4 | Fairly similar to | the Zoom | Stryder but | with less i | range & less s | mooth to ride | . Handles fold | d away well but | t tend to wobble. | Very cheap sco | ooter but dec | cent specs. | | | |
| KUGOO | S1 PRO | up & d step | OK | Good | 25-30k | medium | 11kg | 30kmph | ок | | T honeycomb, MP 11 | | 120kg | Both | 350w | Folded size: 96x21x33cm |
| TOOOO T | Achievement scores 1 to 10⇒ | αρ ω α στορ 7 | 6 | 8 | 6 6 | 7 | 9 | 7.5 | 7.5 | 6.5 | n noneycomb, wir i i | 4 | 10 10 | 10 | 00011 | 66 528cm³ |
| İ | Weighting x Achievement ⇒ | 40.6 | 48 | 76.8 | 42 | 47.6 | 75.6 | 42 | 15 | 52 | Õ | 11.2 | 10 | 24 | | Tires 20cm |
| k. | 404.0 | | | | | | | | | | • | | | | | |
| 1 € | Overall Score ⇒ 484.8 | | | | | | | | | • | | | | | | years but then had to fix. |
| Megawheels | | up & d step | OK | Good | 8k | small | 7.7kg | 24kmph | ok | - | Γ solid, MP 10 | 2 hours | 90kg | Brake lights | 250w | Folded size: 86x29x19cm |
| 1 | Achievement scores 1 to 10⇒ | 8 | 8 | 8 | 0.5 | 8 | 9.5 | 5.5 | 4.5 | 3.5 | 0 | 7 | 7 | 3 | | 47 386cm³ |
| | Weighting x Achievement ⇒ | 46.4 | 64 | 76.8 | 3.5 | 54.4 | 79.8 | 30.8 | 9 | 28 | 0 | 19.6 | 7 | 7.2 | | Tires 15.4cm(F) 14cm(B) |
| | Overall Score ⇒ 426.5 | 400 F | | | | | | | | | intermittent | nittently after about 2 years of riding. | | | | |
| Minus | | | | | • | | | | | | | | | | • | |
| Micro | Colibri | up & d step | Good | Good | 12k | large | 9.9kg | 25kmph | ок | Front suspension | T solid, MP 7 | 2 hours | 100kg | Both | 200w | 94.3x56x46xcm |
| T | Achievement scores 1 to 10⇒ | 8 | 8.5 | 8 | 1.5 | 0 | 9.25 | 6 | 5 | 4 | 3 | 7 | 8 | 10 | | 242 144cm³ |
| I. | Weighting x Achievement ⇒ | 46.4 | 68 | 76.8 | 10.5 | 0 | 77.7 | 33.6 | 10 | 32 | 19.8 | 19.6 | 8 | 24 | | Tires 20cm(F), 12.5cm(B) |
| | | | | | | | | | | | | | | | | |

| | Overall Score ⇒ 426.4 | includes an act | tive kick as | sist mode b | ut with spe | ed limited to | 16kmph. Deck | 10.8 cm high | • | | | | | | | | | | |
|-------------|--|---------------------------------|---|--------------|-----------------------|--------------------------|-----------------|-----------------------|---------------------|--------------------|------------------|----------------|---------------|---------------|---------------------|---|--|--|--|
| Micro | Explorer | up & d step | ok | Good | 25-30k | medium | 13.5kg | 30kmph | OK | Front & back | T solid, MP11 | 3.5 hours | 100kg | Both | 500w | Folded size: 92.8x14.5x34 cm | | | |
| 7 | Achievement scores 1 to 10⇒ | 6 | 5 | 8 | 6 | 8 | 8.5 | 7.5 | 6 | 5 | 0 | 9 | 8 | 10 | | 45 750cm ³ | | | |
| 1 | Weighting x Achievement ⇒ | 34.8 | 40 | 76.8 | 42 | 54.4 | 71.4 | 42 | 12 | 40 | 0 | 25.2 | 8 | 24 | | Tires 20cm | | | |
| △ | Overall Score ⇒ 470.6 | Twist grip thro | Twist grip throttle, hand brake, rubber deck & little flap for number plate (to be road legal). Known to be durable despite having lots of moving parts. Short stopping distance. | | | | | | | | | | | | | | | | |
| Micro | Falcon (NA) | up & d step | Good | Good | 10k | medium | 7.9kg | 25kmph | Unsuitable | No suspension | T solid, MP 6 | 1 hour | 100kg | 3rake lights | 500w | Folded size: 78x50x15cm | | | |
| T | Achievement scores 1 to 10⇒ | 8 | 9 | 8 | 1 | 7.5 | 9.5 | 6 | 2.5 | 1.5 | 4 | 9 | 8 | 3 | | 58 500cm ³ | | | |
| 1 | Weighting x Achievement ⇒ | 46.4 | 72 | 76.8 | 7 | 51 | 79.8 | 33.6 | 5 | 12 | 26.4 | 25.2 | 8 | 7.2 | | Tires 15cm(F) 12.5cm(B) | | | |
| | Overall Score ⇒ 450.4 | Kick assist mo | tor allows | change betw | een manua | al & electric m | odes. Twist g | rip throttle, v | arious ride mo | des & cruise con | trol. Well built | | t custome | r service fro | rom the Micro team. | | | | |
| Micro | flex deluxe | up & d step | Good | Good | NA | v. small | 4.85kg | (NA) | Unsuitable | | T solid, MP 7 | 0 hours | 100kg | None | NA | Folded size: 64x11x22cm | | | |
| T | Achievement scores 1 to 10⇒ | 9 | 10 | 7 | 0 | 9.5 | 10 | 0 0 | 1.5 3 | 1.5 | 3 | 10 | 8 8 | 0 0 | | 15 488cm³ | | | |
| 6 | Weighting x Achievement ⇒ | 52.2 | 80 | 67.2 | 0 | 64.6 | 84 | U | 3 | 12 | 19.8 | 28 | 8 | U | | Tires 20cm | | | |
| A. | Overall Score ⇒ 418.8 | The only non-e | lectric tool | here. The lo | w deck hel | lps when sco | oting. This wo | uld likely win | if money & tin | ne spent on char | ging, price & ca | arbon footprin | nt were in | cluded facto | rs. Not v | ery smooth though. | | | |
| RCB | R15 | up & d step | Good | Good | 16k | medium | 7.5kg | 20kmph | Unsuitable | No suspension | T solid, MP 7 | 6 hours | 80kg | None | 150w | Folded size: 88x44x27cm | | | |
| | Achievement scores 1 to 10⇒ | 9 | 9 | 8 | 2.5 | 5 | 9.5 | 4 | 2 | 1 | 3 | 0 | 6 | 0 | | 104 544cm³ | | | |
| ١. | Weighting x Achievement ⇒ | 52.2 | 72 | 76.8 | 17.5 | 34 | 79.8 | 22.4 | 4 | 8 | 19.8 | 0 | 6 | 0 | | Tires 14cm | | | |
| Ga- | Overall Score ⇒ 392.5 | Marketed as so | methina fo | r children a | nd teenage | rs. but could | be used by an | vone under 8 | Okas. | | | | | | | | | | |
| Segway | Ninebot ES2 | up & d step | OK? | Good | 25k | large | 12.5kg | 25kmph | ок | Front & back | T solid, MP 8 | 3.5 hours | 100kg | Both | 300w | Folded size: 113x43x40cm | | | |
| 1 | Achievement scores 1 to 10⇒ | 7 | 5.5 | 8 | 4 | 0 | 8.75 | 6 | 6 | 5 | 2 | 4 | 8 | 10 | | 194 360cm ³ | | | |
| 1 | Weighting x Achievement ⇒ | 40.6 | 44 | 76.8 | 28 | 0 | 73.5 | 33.6 | 12 | 40 | 13.2 | 11.2 | 8 | 24 | | Tires 20cm | | | |
| | Overall Score ⇒ 404.9 | One of the top | of the rang | e scooters v | vith many f | eatures. Add | a battery to tι | ırn it into the | ES4 (heavier b | ut faster with gre | eater range). No | ot compact wh | nen folde | d because th | e folding | g hinge is set too high. | | | |
| SoFlow | Air Aluminum | up & d step | ok | Good | 18k | small | 7.7ka | 24kmph | ок | Front suspension | T solid. MP9 | 2 to 3 hours | 100ka | Both | 250w | Folded size: 99x14x20cm | | | |
| T | Achievement scores 1 to 10⇒ | 8 | 7 | 8 | 3 | 9 | 9.5 | 5.5 | 4.5 | 3 | 1 | 6 | 8 | 10 | | 27 720cm ³ | | | |
| 1 | Weighting x Achievement ⇒ | 46.4 | 56 | 76.8 | 21 | 61.2 | 79.8 | 30.8 | 9 | 24 | 6.6 | 16.8 | 8 | 24 | | Tires 13.97cm | | | |
| 1 | Overall Score ⇒ 460.4 | Deck is high up | and not e | ven with gro | und with a | tiny wheel. B | ut folds beau | tifully (hinge l | ower down = c | compact folding) | | | | | | | | | |
| /oyager | Proton | up & d step | OK? | Good | 16k | medium | 9kg | 24kmph | oĸ | • | T solid, MP7 | Up to 4 hours | 100kg | Front | 250w | Folded size: 99x20x46cm | | | |
| T | Achievement scores 1 to 10⇒ | 8 | 7.5 | 8 | 2.5 | 5.5 | 9.25 | 5.5 | 4.5 | 3.5 | 3 | 3 | 8 | 7 | | 91 080cm³ | | | |
| L | Weighting x Achievement ⇒ | | 46.4 60 76.8 17.5 37.4 77.7 30.8 9 28 19.8 8.4 8 16.8 | | | | | | | | | | | Tires small | | | | | |
| | Overall Score ⇒ 436.6 | A cheap lightw | • | | | | | | | | | | | | | 5 11 1 1 400 40 ·- | | | |
| Xiaomi 7 | Mi M365 Achievement scores 1 to 10⇒ | up & d step | OK 5.5 | Good 8 | 30k 6 | large 0 | 12kg 8.75 | 25kmph | OK | No suspension | Tair, MP 6 | 5 hours | 100kg 8 | Both 10 | 250w | Folded size: 108x43x49cm 227 556cm ³ | | | |
| / | Weighting x Achievement ⇒ | 40.6 | 44 | 76.8 | 42 | 0 | 73.5 | 33.6 | 5.25 10.5 | 4.25 34 | 0 | 2.8 | 8 | 24 | | Tires 22cm | | | |
| | 000.0 | | | | | | | | | | ite the low sco | | | | very hes | st riding experiences. | | | |
| Zinc | Overall Score ⇒ 389.8 | up & d step | OK | Good | 13k | medium | 9.1kg | 25kmph | OK | Front suspension | | 3 hours | 80ka | Both | 200w | Folded size: 102x43x34cm | | | |
| | Achievement scores 1 to 10⇒ | up & u step | 7.5 | 8 | 1.5 | 2.5 | 9.25 | 25kiiipii 6 | 4.5 | 3.5 | O O | 5 110415 | 6 | 10 | 2004 | 149 124 cm ³ | | | |
| | Weighting x Achievement ⇒ | 46.4 | 60 | 76.8 | 10.5 | 17 | 77.7 | 33.6 | 9 | 28 | 0 | 14 | 6 | 24 | | Tires 15.4cm(F) 14cm(B) | | | |
| L - | 400 | | | | | | | | - | | - | • | - | | | (2) | | | |
| oom (NA) | Overall Score ⇒ 403 Stryder EX | Similar build to up & d step | OK OK | Good | n more rang 30-35k | ge and lights. medium | 11kg | bar though! 30kmph | ОК | Front & back | T solid, MP11 | 2 to 3 hours | 110ka | Both | 600w | Folded size: 95x15x33cm | | | |
| 1 | Achievement scores 1 to 10⇒ | αρ α α στ ο ρ 7 | 6 | 8 8 | 7 | 8 | 9 9 | 7.5 | 5.5 | 4.5 | 0 | 6 | 9 | 10 | 000W | 47 025cm ³ | | | |
| Į. | Weighting x Achievement ⇒ | 40.6 | 48 | 76.8 | 49 | 54.4 | 75.6 | 42 | 11 | 36 | Ö | 16.8 | 9 | 24 | | Tires 19cm | | | |
| <u>_</u> | Overall Score ⇒ 483.2 | Excellent range | of function | ns & known | to be extre | emely durable | . Handles fold | l in for easy s | torage. Accelei | rator & brake swi | tches are fiddl | y but you can | use Eco | mode & cruis | se contr | ol for a smoother ride. | | | |
| oom (NA) | Stryder Pro | up & d step | ок | Good | 35-40k | medium | 12kg | 35kmph | ок | | T solid, MP11 | | 110kg | Both | 750w | Folded size: 95x15x33cm | | | |
| 1 | Achievement scores 1 to 10⇒ | 7 | 5.5 | 8 | 8 | 8 | 8.75 | 9 | 5.5 | 4.5 | Ó | 5 | 9 | 10 | | 47 025cm ³ | | | |
| I | Weighting x Achievement ⇒ | 40.6 | 44 | 76.8 | 56 | 54.4 | 73.5 | 50.4 | 11 | 36 | 0 | 14 | 9 | 24 | | Tires 19cm | | | |

| factors (considerations)⇔ | UP & DOWN CURBS (or other large obstacles & ledges) | USE (rolling freely | VEHICLE CONTROL (precision of steering, ease of riding, stability on smooth surfaces & prevention of vehicle rolling off by itself) | RANGE (distance possible after full charge) | SIZE FOR HANDY STORAGE (when folded) (under a seat, in car boot, box, in car boot, box, in our as on) Overall cubic cm (width x height x length) | PORTABILITY (walking around with it - pushing or carrying) | TOP SPEED (how fast it will go) | OFF-ROAD RIDING (rough ground, sand, dirt tracks, mud, grass & so on) | SMOOTHNESS ON NORMAL CITY SURFACE (Factors: Suspension with tire size & material) | DURABILITY (Sturdiness, lack of faults, lack of need for replacement parts or maintenance) T=Tires MP = moving parts | CHARGE TIME (lower weighting because info is highly variable) | MAX RIDER WEIGHT | LIGHTS | MOTOR | SIZE (see handy storage) |
|---|---|--|--|---|---|---|--|--|---|--|---|------------------------------|-----------------------|-------|-----------------------------|
| Explanations of achievement scores → | Step up = 5 points or Hop up = 3 points, Step down = 5 or Roll or hop down = 3 | Naturally self- balancing without motor (e.g. scooters) | Handles 4 (or other way of holding onto device) OR Not likely to roll away by itself (e.g auto motor switch off when rider dismounts) = 2 | 10 to 50 | Points for smaller size. Less than: | Starting with 10 points but | 10 to 40 | Smoothness score (see right) then in addition: | Front Suspension = 2 Rear Suspension = 1 | Minus 2 points (- 2) for each pneumatic (air filled) tire (may well need replacing) | Stated time or less | Stated weight or above | (shining) | | |
| Limitations of this research: 1. | 1 wheel or wheels on same plane (no | Viek assist =1 | 0.5 points per wheel | 10 = 1 | 10 000cm³=10 | Over 5.5kgs - 0.5 | 10 = 1 | Single wheel = 2 (or no front & back) | Pneumatic front tire = 1.5, rear = 0.75 | Minus 1 point (-1) | 30 mins = 10 | 120kg = 10 | Reflective | | |
| Most of the specs such as speed, range & so on are those provided by the sellers & | front & back wheel) = 1 | point added, Low deck | Roll without motor | 14 = 2 | 20 000cm³= 9.5 | Over 7kgs - 1 | 13 = 2 | Wide (over 5 cm) front wheel = 0.75 | Honeycomb or foam front tire =1, rear = 0.5 | for each movable part such as a | 1 hour = 9 | 110kg = 9 | or brake light = 3 | | |
| not all of them have been verified yet. | Minus points for weight: | | in case it fails (Two or more wheels in | 18 = 3 | 30 000cm³= 9 | Over 8.5kgs - 1.5 | 16 = 3 | Wide back wheel (over 5 cm) = 0.25 | Hard front wheel - 1 (e.g polyurethane) | wheel, lever, hinge point, | 1.5 hours = 8 | 100kg = 8 | | | |
| The achievement scores are based on points systems (shown right) which may | Over 5.5kgs - 0.5 | Motor -2 points (roll | line of travel) = 2 | 22 = 4 | 40 000cm³= 8.5 | Over 10 kgs - 2 | 19 = 4 | Tread on front wheel | Hard rear wheel - 0.5 (e.g polyurethane) | retractable handle & so on | 2 hours = 7 | 90kg = 7 | | | |
| need improving or adjusting. | Over 7kgs - 1 | resistance) | Wide front wheel(s) | 26 = 5 | 50 000cm³= 8 | Over 11.5 kgs - 2.5 | 22 = 5 | Tread on back wheel | Flexible deck = 1 | | 2.5 hours = 6 | 80 kg = 6 | | | |
| 3. There are many transport tools not listed yet. 4. | Over 8.5kgs - 1.5 | for weight: | (over 5 cm) = 0.75 Wide back | 30 = 6 | 60 000cm³= 7.5 | Over 13kgs - 3 | 25 = 6 | = 0.25 | Tire size | | 3 hours = 5 | 70 kg = 5 | | | |
| Factors not included are build quality, rider | Over 10 kgs - 2 | Over 5.5kgs - 0.5 | wheel(s) (over 5 Tread on front | 34 = 7 | | Over 14.5kgs - 3.5 | 28 = 7 | | 10cm = 1 | | 3.5 hours = 4 | 60 kg = 4 | | | |
| comfort, aesthetics, price, max incline, acceleration, stopping distance, electricity | Over 11.5 kgs - 2.5 | Over 7kgs - 1 | wheel(s) = 0.75 Tread on back | 38 = 8 | 80 000cm³= 6.5 | Over 16 kgs - 4 | 31 = 8 | | 20cm = 2 | | 4 hours = 3 | 50 kg = 3 | | | |
| cost, width space required on pavement, | Over 13kgs - 3 | Over 8.5kgs - 1.5 | wheel(s) = 0.25 (front is more important) | 42 = 8.5 | 90 000cm³= 6 | Over 17.5 kgs -5 | 34 = 9 | | 30cm = 3 | | 4.5 hours = 2 | 40 kg = 2 | | | |
| waterproofing, carbon footprint & customer | Over 14.5kgs - 3.5 | Over 10kgs - 2 | One wheel | 46 = 9.5 | 100 000cm³= 5.5 | | 37 = 10 | | 40cm = 4 | | 5 hours = 1 | 30 kg = 1 | | | |
| service of seller. These are either too variable, subjective, hard to measure or | Over 16 kgs - 4 | Over 11.5kgs -2.5 | devices count as front and back | 50 or | 110 000cm³= 5 | then only HALF the deductions. | Over 40kmph may be | | 50cm = 5 | | 5.5 hours = 0 | | | | |
| there was a lack of information. Areas | Over 17.5 kgs -5 | Over 13kgs - 3 | ITOTIC ATTO DACK | higher = | 120 000cm³= 4.5 | Example: The Kingsong 16s | unhelpful or dangerous for | | | | | | | | |
| where precise data was not acquired are | Tyre size: | Over 14.5kgs - 3.5 | | 10 | 130 000cm³= 3.5 | weighs 17.5 kg but | such small | | | | | | | | |
| marked with asterisk(*). If you see any | Over 30cm 1 | Over 16kgs - 4 | | | 140 000cm³= 3 | only loses 2.5 points | devices | | | | | | | | |
| mistakes please let us know! | Over 35cm 1.5 | Over 17.5kgs -5 Example: | | | 150 000cm³= 2.5 | (not 5 points) because it has a | | | | | | | | | |
| | Over 40cm 2 Example: Urmo | Zinc Eco = | | | 160 000cm³= 2 | trolley handle so | | | | | | | | | |
| | can roll down (3), | naturally self- balancing | | | 170 000cm³= 1.5 | can be pushed | | | | | | | | | |
| | wheels on same | (10), low deck | | | 180 000cm³= 1 | | | | | | | | | | |
| | plane (1) & are 30cm (1), over 5.5 | (1), hub | | | 190 000cm ³ = 0.5 200 000cm ³ = 0 | | | | | | | | | | |
| | kgs(-0.5) = 4.5 | motor (-2), over 8.5kg (- | | | ∠∪∪ UUUCM~= 0 | | | | | | | | | | |
| | points | 1.5) = 7.5 | | | | | | | | | | | | | |