DAKOROMAN DRIVE SYSTEMS

IOAN "Dakoroman" OASA

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IOAN OASA–creator DAKOROMAN DRIVE SYSTEMS.

I was born on 28 May 1960, the City of Slobozia (meaning Freedom), region of Muntenia, South – East of Romania; my beloved place will always remain the City of Calarasi, Calarasi County, where I grew up as one of the " stadium's children " (our house at Gheorghe Lazar, nr. 43 is very close to the Calarasi Central Stadium), on the left bank of majestic Borcea, the local name/ branch of the Danube River.

My ancestors are originally from Tara Oasului, Transylvanian region, my family name OASA being the reflection of this.

Parents: Octavian and Alexandrina OASA -family column/ pillar
Brother: Emilian OASA, my twin brother, we have been together the first twenty three years of our lives, his wife Rodica and children Ruxandra and Irina.
Sister: Eugenia OASA, son Cristian.
Wife: Carmen Ramona OASA, children Andreea and Andrei.
Tiberius Octavian OASA, our beloved son born in Sydney, Australia / 09 Jan 2001.

General School No– 4, Calarasi.
Liceul Militar de Marina " Alexandru Ioan Cuza – Constanta ". Institutul Militar de Marina " Mircea -cel-Batran "- Constanta , Sectia Electromecanica, Diploma –07 Aug 1983, Lieutenant.
1983 to 1991: navigating on the Romanian merchant ships, IEFM Navrom Constanta on 7800 tonnes cargo ships ("Humulesti", "Hagieni", " Neptun", "Fieni", etc), representing with great pride Romania in the world.

From 18 Oct 1991: surviving in Sydney (Visa 200), Australian citizen, trying to assimilate what is good from the Australian culture and the Romanian culture/ accumulated in 2 500 + years.

Hobbies: history, geography, politics, reading, science, inventing, problem solver, chess, I love sports, football especially.

DAKO-ROMAN, DAKO–ROMANIA

More than 2500 years ago, around the Carpathian mountains, Danube river, Transylvanian plateau, Black Sea, Tisa river, the big plains, where is now modern Romania, one of the oldest native people of Europe were the inhabitants, the people of Dacia.

The superpower of the moment was the Roman Empire, who eyed the wealth of Dacia: gold, silver, salt, wine, animals, good weather, rivers, forests, also a very good strategic point against the "barbarians" attacking the Roman Empire from North and East.

Emperor Traian has conducted a few wars against the Dacians who would prefer to die fighting against the invaders instead of giving up their wealthy land, the most valuable thing, source of prosperity, a legacy that will remain forever in the psyche of the ROMANIAN PEOPLE.

Dacia's leader Decebal was surrounded by the Roman soldiers; rather than being enslaved and paraded as a trophy on the streets of Rome by Emperor Traian, he killed himself, his soul and legend surviving; Decebal is part of the Universality enhancing one of the best components of human character: pride to belong and serve your own race, people, country.

The Romans stole everything: the treasury especially, for a whole year no Roman citizen from the vast Roman Empire had to pay any tax, a measure of how much wealth was stolen.

Some of the Rome's / Roman Empire architectural splendors were created due to the gold stolen from DACIA/ Transylvania.

Dacia was transformed in colony, to protect the new source of wealth, colonists encouraged to live here, the Dacian and Roman cultures and people have suffered a " melting pot " process, it is the starting point of the ROMANIAN PEOPLE, speaking a Latin based language, the ROMANIAN LANGUAGE, close to Italian, French, Spanish, Portuguese languages, other Romantic languages.

Traian's wars of conquest of Dacia were preserved in stone, sculptures; Traian's Column describing the wars against the Dacians can be admired in Rome / Italy, the victors wrote their version of history, the almighty Roman invaders presented as liberators, another example of empires "spreading civilisation".

It was called " Pax Romana ": the Empire was attacking, destroying any form of resistance, total annihilation, genocide, colonisation, the survivors enjoying their new status as Roman citizens, serving the new masters.

The occupation of Dacia did not last: the Roman Empire was in a state of decadency, Universal Law of atomic decay, everything having a starting, high development and ending points, empires as well, probably one of very few hopes for humanity, nothing will last forever, good or bad, a chance for regeneration.

The Roman Empire had to withdraw their troops from Dacia, but the Dako-Romans had nowhere to go, Dacia was their country, life and future, these people were not nomads or migrating people but natives, agricultura type society growing the crops, building schools, houses, fortifications, castles, roads, morals, rules to function, laws, warriors defending the homeland, etc.

After the Romans, the big invasions of the migrating people from East have started, for the next centuries changing the face of those places where some of them settled, being assimilated.

Nobody knows why mass migrations are oriented East-West, maybe there is a connection with our planet's rotation/ growing.

For Dako-Romans, the only way to survive against countless migrating waves was to keep their Latinity, in fact the invaders ended up being assimilated to the superior Dako-Roman culture, the " barbarians " were living on the back of their horses and keeping everything they had in mobile tents, they could travel like that leaving a path of destruction, but everything they were encountering on the way were landmarks/ nomadic style.

Now, in the modern/ democratic/ hoax times, the ROMANIANS and ROMANIA are a LATIN ISLAND among / between non-Latin races and cultures, in Eastern Europe.

Dako-Roman's wish and dream to create their own state finally become reality, ROMANIA was born against all odds, the citizens are ROMANIANS, speaking ROMANIAN, Latin based language:

" Suntem in cuvint si-n toate
Floare de Latinitate,
Eminescu sa ne judece "

The " modern " world superpowers are acting like the Roman Empire, doing what they know best: controlling, destroying, influencing, killing, stealing the wealth of Romania, oppressing the Romanians, helping the non-Romanians to lead the country, acting against the Romanian national interests.

Non-Romanians = traitors, some Romanians included, anyone paid by the enemies / superpowers to destroy our Fatherland, part of the "divide and conquer" process to destabilize the country.

Every time the superpowers are fighting against each other, the Romanians have to pay with their blood, territories, wealth, just to survive as people, race, country; not ideal conditions to flourish.

They can't accept that the Dako-Romanian's roots in history are deeper / bigger than the most of the European's.

Despite all these, the DAKO-ROMANIAN will continue to live on Planet Earth forever, in harmony with other races/ nations.

DAKO - ROMANIA

DAKOROMAN

DAKOROMAN HUMAN POWERED SYSTEMS

DAKOROMAN DRIVE SYSTEMS

The following inventions refer to Human Powered Systems-HPS, based on some Dakoroman concepts / ideas.

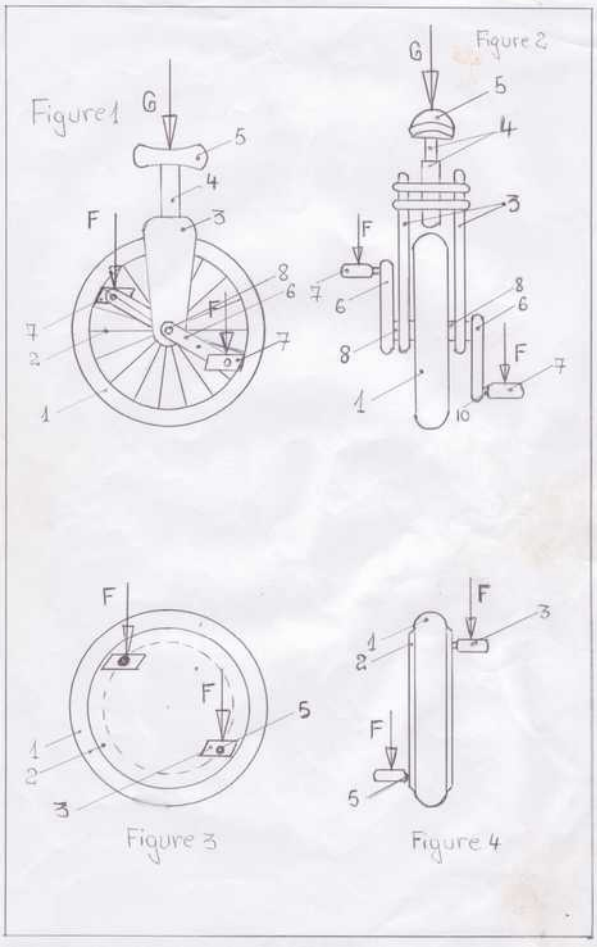
The big point is about SUSTAINABLE/ PORTABLE/ CONVERTIBLE/ TRANSPORTABLE/ COMPACT / FAST/ FOLDING products/ HPV's.

Figures 1and 2: STANDARD UNICYCLE WITH FRAME

1- rim/ tyre, 2- spokes, 3- frame(on ball bearings), 4- stem, 5- saddle, 6- cranks, 7- pedals
8- central axle, connecting still the unicycle's wheel/ hub, frame's ball bearings 9 and cranks 6.
9- ball bearings, between frame 3 and central axle 8.
10- pedal axles, screwed to cranks 6.

Figure 1.a: Dakoroman Geared Cranks Unicycle; a detachable connector is used to put this unicycle together with another unicycle creating a Dakoroman Tandem, or on the back of a bicycle.
A special system can changes the 1:1 ratio/ normal unicycle to X:1.

Figures 3 and 4: STANDARD UNICYCLE WITH NO FRAME
1- tyre/ rim, 2- transparent disc, supporting the rim / tyre.
3- pedals, 4- imaginary circle, diameter d= the distance between the axis of axles 5.
5- pedal's axles, screwed/ connected to the transparent disc 2.
From figures 1,2,3,4: the unicycle rider pushes the pedals, creating a circular movement, rotating the wheel.



Figures 5 and 6 : DAKOROMAN FULCRUM TYPE UNICYCLE

1- wheel/ tire, 2- pedal, 3- strap/ clipless pedal, 4 – frame, 5 – frame extension, 6 – fulcrum/ on ball bearing, 7 – other side pedal, 8 – handler, 9 – pedal's axles.

HOW IT WORKS :

this design was created to increase the control of the unicycle, by using a fulcrum, between rider's hand/ handler and pedal 2, plus the other supporting point/ side.
R1 is a little bit greater/ bigger than R2.
Even small wheels can be easily ridden, ideal for beginners or advanced unicyclists demanding responsive products.

Figures 7 and 8: DAKOROMAN GOD'S HAND UNICYCLE

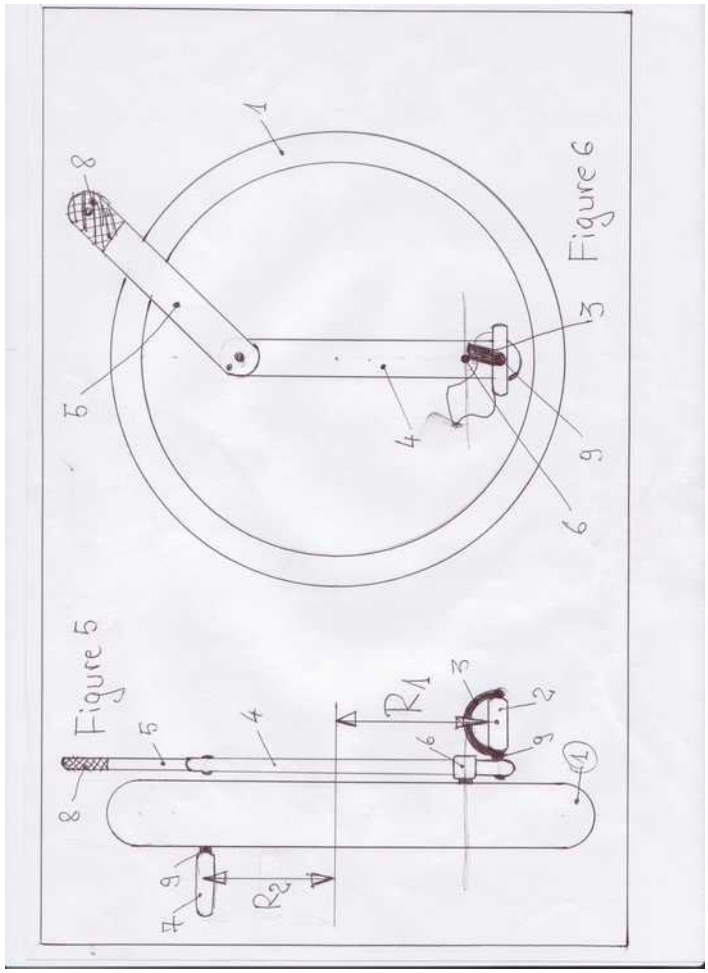
A simple unicycle with no frame/ disc type, one of the pedals having a frame/ GOD' S HAND / an extension, making it much more stable, easy to control, ride, regardless of the size of the wheel
NOTE : very school, every playing place/ market/ church/ etc, should have DAKOROMAN GOD'S HAND unicycle type or any other type, riding/ training sessions for people, to increase their body/ physical / financial/ economic/ moral/ government/ health balance.

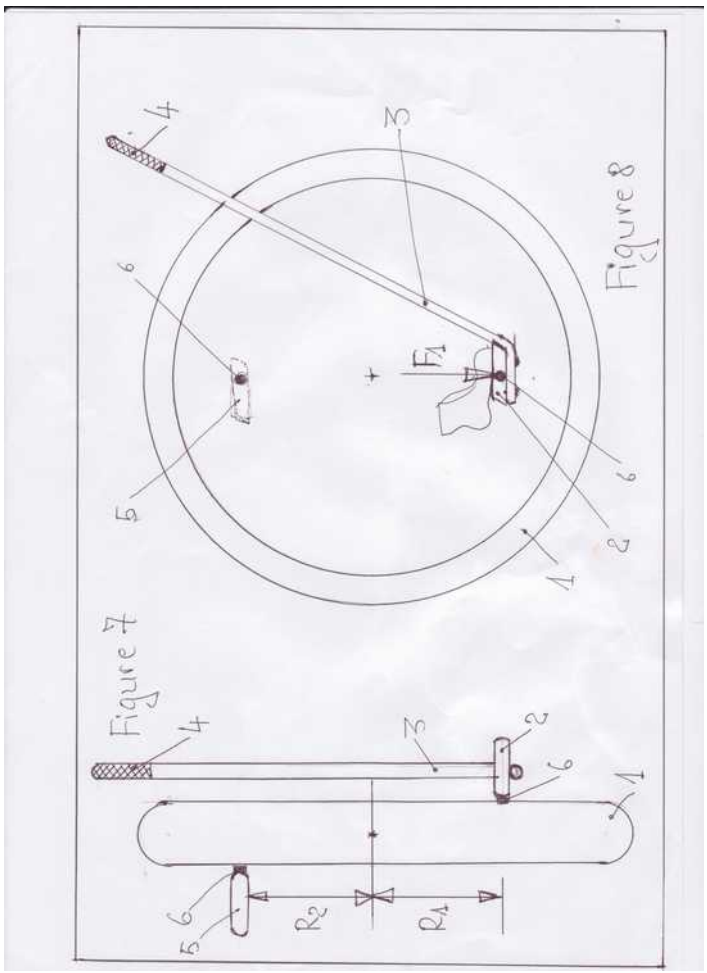
Get rid of the official media/ corporate/ government brain washing system and let your children enjoy/ play/ be part of the nature/ healthy and beautiful.

FIGURE 9: DAKOROMAN 4- FOUR POINTS UNICYCLE FRAME

A problem for unicyclists/ beginners is to mount the unicycle.

DAKOROMAN FOUR-4 POINTS UNICYCLE FRAME brings the pedals very close to the ground, practically touching with the shoe the ground and the pedal at the same time.
One of the hands holds handler 8; radiuses R1=R2 can be variable/ adjustable, very simple operation, so any rider can fit.





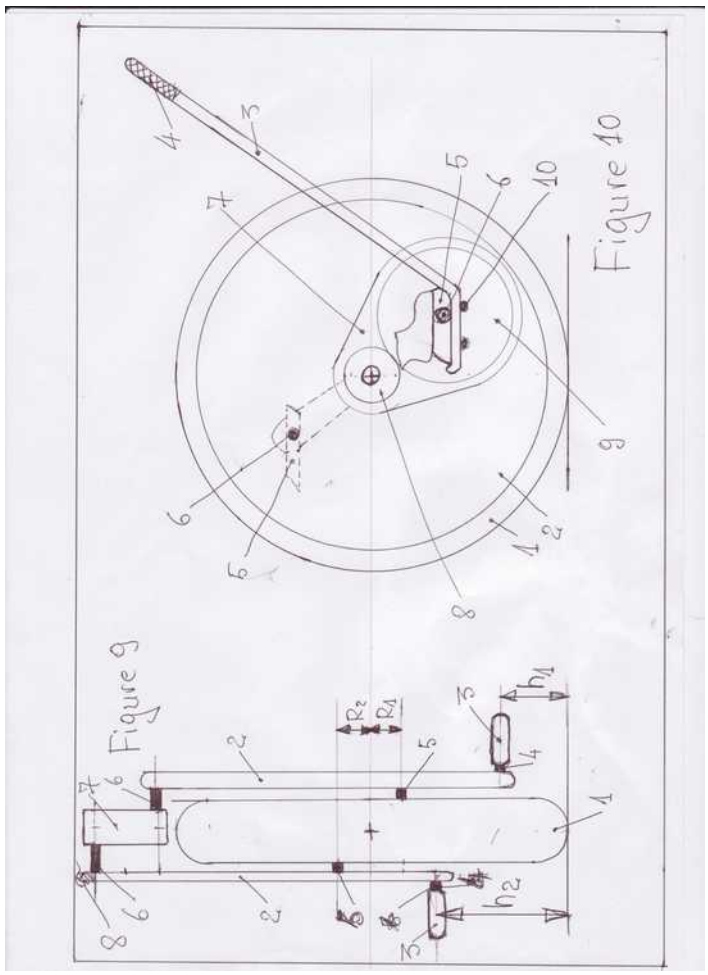


Figure 10: DAKOROMAN GEARED CRANKS GOD'S HAND

Shows a disc type unicycle with a DAKOROMAN GEARED CRANKS SYSTEM- 7, a GOD'S HAND frame extension- 3/ fulcrum system can be used as well, in fact this design acts like one.

HOW IT WORKS:

The rider holds with a hand handler- 4, one shoe "holding" point 6= pedal's axle, connected still with big gear 9.
Small gear 8, mounted still on wheel's disc 2, is forced to rotate clockwise, so is the big wheel/ tire.
On the other side of the disc it is a normal crank/ like in fig. 20, mounted still on wheel's axle, which through the middle of the wheel will be connected still with DAKOROMAN GEARED CRANK PLATE.

A fast, compact unicycle/ just fold the extension 3.

Other designs are possible, serving the same purpose: the creation of customized unicycles, for different needs/ uses.

I have another 6 to 10, different concepts, nice, beautiful, etc.

Figures 15 and 16 : DAKOROMAN GEARED CRANKS UNITS

1- rim/ tyre, 2- transparent disc, 3- Dakoroman plated cranks,
4- Dakoroman long pedals, 5- central axle, connected still with disc 2, supports Dakoroman frame 7 and Dakoroman Geared Cranks Units.
6- ball bearings, supporting any type of frame/ or Dakoroman frame 7.
7- unicycle/ Dakoroman frame, supported by central axle 5/ bearings.
8- small gears, 9- big gears, meshing with small gears 8.
10- pedal axles, connects still Dakoroman long pedals 4/ big gears 9.
11- ball bearings, on each side of the small/ big gears, supporting Dakoroman plated cranks 3, central axle 5, pedal axles 10.
12- Dakoroman geared cranks walls/ frame; 13- spacers, cylindrical or gasket type between Dakoroman walls 12, making Dakoroman plated geared cranks very stiff, to resist at rider's "punishment".

HOW IT WORKS: Dakoroman Geared Cranks Units" have small/ big gears between two Dakoroman walls, central axle 5 is mounted still through transparent disc 2.
Dakoroman Geared Cranks Units have pins to stop the movement of small/ big gears against each other, until the rider mounts the cycle.
Customised units (any size or transmission ratio, depending of the rider/s demands) can be mounted on any type of existing HPV's.
Dakoroman Geared Cranks are easy put ON/ OFF from the wheel's axle 5, as simple/ the same way as any "normal" crank.
Special connectors, even a "universal" one are mounted on small gear 8, to accommodate any axle type.

Figure 17: DAKOROMAN GEARED CRANKS UNITS TYPE A

1- Dakoroman plated frames, made from two parallel wall plates, kept together by screws and spacers; the spacers can be small cylinders around each screw or around the perimeter of Dakoroman wall plates, everything inside the two parallel walls being well protected against dust, dirt, water, maintaining the internal components.
2- small gears, supported by ball bearings and connectors 7.
3- big gears, connected still with pedal axles 9 and Dakoroman long pedals 4, meshing with small gears 2.
4- Dakoroman long pedals, connected still with pedal axles 9 and big gears 3; remain all the time parallel with a horizontal plane, can be still connected by a pedal system with the rider's shoe/ clipless, straps.
5- rider's foot, pushing Dakoroman long pedals 4 with force F, above the pedal axle 9 and at the back end of the long pedal pushing with the heel/ force F1.
6- gear's mesh, 7- connectors, between the small gears 2 and different types of central axles existing on the market.
8- holes, through them bolts/ nuts are used to fasten the two parallel walls, the spacers (hose or gasket types), insuring very stiff, resistant Dakoroman Geared Crank Units.
9- pedal axles, connects still long pedals 4/ big gears 3/ bearings.
Machined plates/ gears can be used also.
Dakoroman Multispeed Geared Cranks: 2, 3, 4 gears/ see figure 19.b.

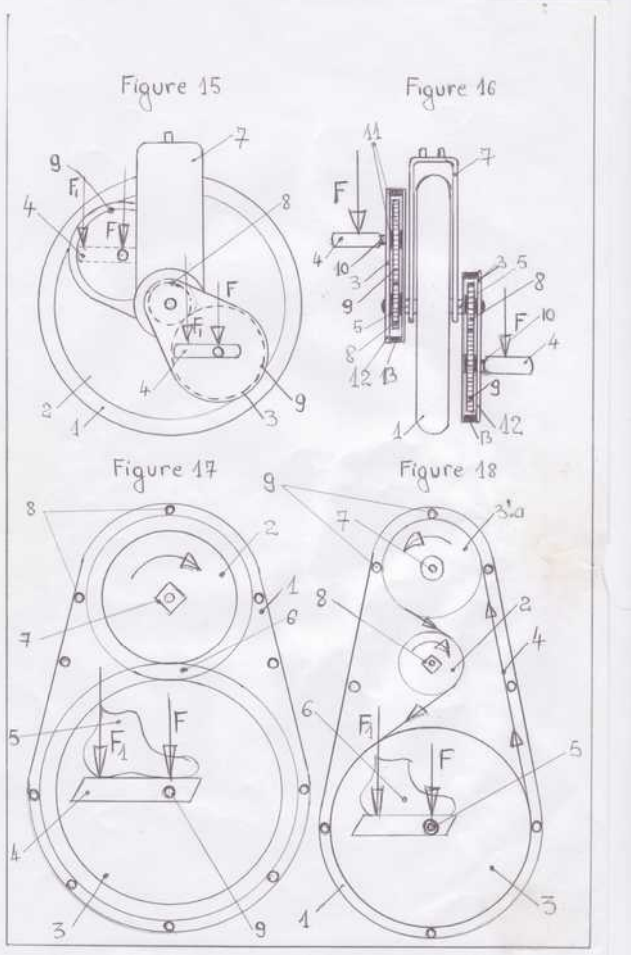


Figure 18: DAKOROMAN GEARED CRANKS UNITS TYPE B

1- two parallel Dakoroman plates/ walls, 2- small sprocket, rotating clockwise, together with the unicycle wheel.
3- big sprocket, executing a satellite type movement around unicycle's central axle, forcing small sprocket 2 and supporting sprocket 3.a to rotate around their own axis.
4- chain, connecting the small/ big/ supporting sprockets.
5- big sprocket's axle, connects still the big sprocket and Dakoroman long pedals.
6- rider's foot, creates Dakoroman Torque, pushes long pedals with forces F and F1; 7- axle/ bearings, supporting sprocket 3.a.
8- connector, between small sprocket 2 and any unicycle axle make.
9- holes, through them bolts/ nuts are used to fasten the parallel plates. 10- spacers/ gasket, between the walls/ plates, to stiff Dakoroman Geared Cranks Units type B; protect internal components against water, dirt, impurities.
Various designs can be made, with 2,3,4 sprockets/ see figure 19.a/

HOW DAKOROMAN GEARED CRANKS UNITS A, B WORK

Rider's feet push folding Dakoroman long pedals with forces F and F1, the big sprockets axles/ big sprockets 3 execute a movement around wheel's central axle; the small gears rotate clockwise, together with wheel's central axle and the disc/ wheel.

Figure 17.a : is a schematic presentation of a wheel with diameter D4= 30 cm, Dakoroman Geared Cranks Type A gears,
D1=D2=D3= 8 cm, pedaling circle=D5= 16 cm, R5= 8 cm.
By pushing Dakoroman long pedals/connected still with gears D2/ D3, central gear/ D1will rotate clockwise two times around axle 01 for each 360 degrees rotation of gears D2/ D3.
Theoretical pedal circle has a radius R= 01- 02=01-03= 8 cm.
Pedal axle/ ground clearance h= 7 cm, ideal for wheels D = 20- 50 cm.

Figure 17.b: shows a schematic view of a Dakoroman Drive System with a Dakoroman Geared Cranks Unit/ Module Type A.

The wheel's diameter is D4= 30 cm, the central small gear D1= 5.4 cm, big identical gears D2=D3= 2 x D1= 10.8 cm.
For each 360 degrees rotation of big gears D2/ D3, the small gear D1 will rotate three times around axle 01; the theoretical pedal circle's radius is R5= 8 cm.
The clearance between pedal axle and ground is h= 7 cm.
For theoretical pedal circles bigger than R= 12 cm, a Dakoroman Geared Crank Unit/ Module Type B is required; there is a physical limitation how big the gears can be, customized to that hpv.
Specialized Dakoroman Geared Crank Units with the desired gear ratios can be mounted on any hpv's, matching the applications.

Figure 17.c: scheme of a BMX with D1= 16 inches or D2= 20 inches, Dakoroman Gears D3=D4= 12 cm; central gear D3 rotates two times around central axle 01; theoretical pedal circle is R= 01-02= 12 cm.
A compromise torque/ speed for BMX.

Figure 17.d: wheel D= 60 cm, Dakoroman Gears D1=D2= 12 cm, theoretical pedal circle R=01-02= 12 cm.

Figure 17.e: standard wheel D1= 60 cm, Dakoroman Geared Cranks Type B with chain; small gear D2= 6 cm, big gear D3= 12 cm, theoretical pedal circle R= 17 cm.
Good to be used on one side only / see figures 19 and 20.

Figures 19 and 20: schematic views of a Dakoroman Drive System with a Dakoroman Geared Cranks Unit Type A.
1-wheel D= 16 cm, supporting central axle 5.
2- transparent disc
3- Dakoroman Plated Crank, note that it is only on one side, connected still with the wheel's central axle 5, also supporting Dakoroman long pedal axle 8 / ball bearings.
4- Dakoroman long pedal, connected still on Dakoroman long pedal axle 8, having attached the shoe support 11.
5- wheel's central axle, supported by the wheel 1/ ball bearings, supports HPV frame 6/ on ball bearing, normal crank 9, Dakoroman plated crank 3 small gear 7/ on ball bearing.
6- frame, only on one side, can be attached to any HPV.

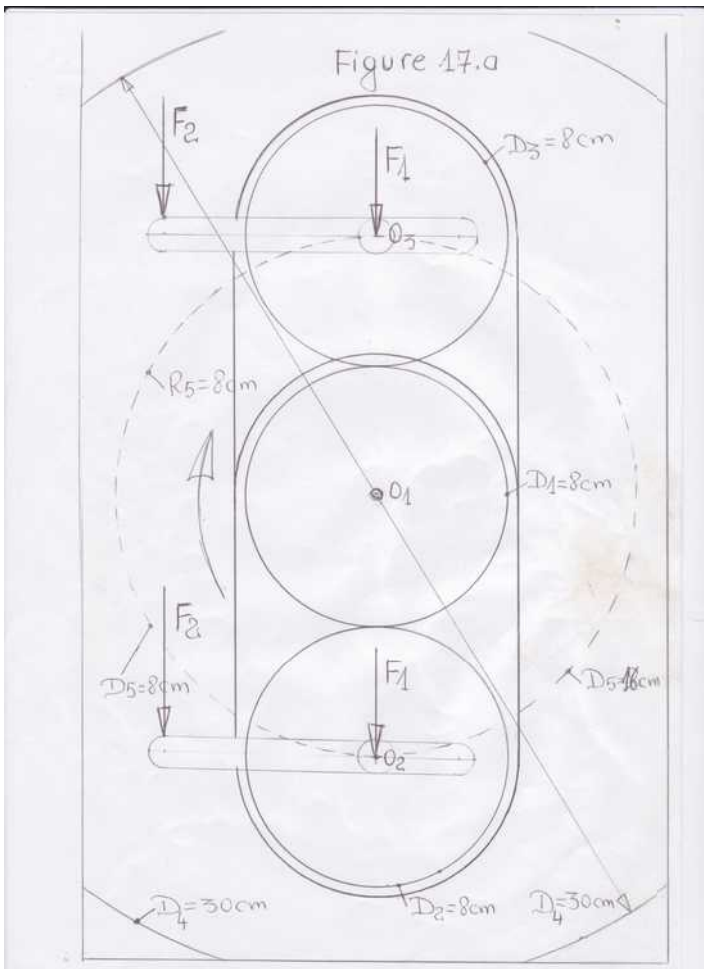
7- small gear, D1= 2 cm, supported by wheel's axle 5/ ball bearing, rotates one way only due to a freewheel system 13 between the small gear 7 and wheel's body/ transparent disc.
7.a- big gear, D2= 6 cm, meshing with small gear 7; supported still by Dakoroman long pedal axle 8.
8- Dakoroman long pedal axle, supported by Dakoroman plated crank 3/ball bearing; connects still big gear 7.a and Dakoroman long pedal 4.
9- normal crank, connected still on one side of wheel's central axle 5, also supporting normal pedal's axle 12.
10- normal pedal, rotating around normal pedal axle 12.
11- shoe supports, 12- normal pedal axle, 13- freewheel system between small gear 7 and wheels body/ transparent disc 2.

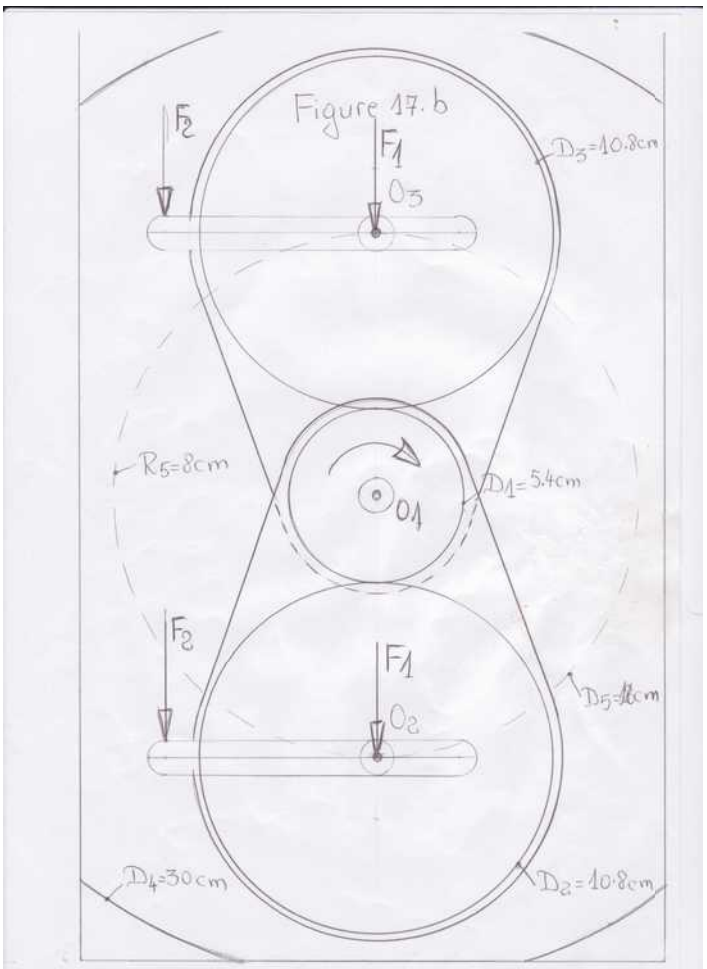
HOW IT WORKS:

The rider pushes Dakoroman long pedal 4 with force F.
Because Dakoroman long pedal 4 is connected still with Dakoroman long pedal axle 8/ the rider's shoe, the big gear 7.a is forced to move all the time parallel with itself around central axle 5, pushing the small gear 7 to rotate around central axle 5/ the big wheel 1, clockwise.
Being connected still via the central axle 5, Dakoroman plated crank 3 and normal crank 9 are kept oriented in the opposite directions.

The rider's right shoe must stay continuously on Dakoroman long pedal 4/ shoe support 11.
For a wheel D= 16 cm and D1= 2 cm, D2= 6 cm, the transmission ratio is D2:D1= 6:2= 3:1.
At this 3:1ratio another rotation of the small gear 7 is added, so the real ratio is 4:1; for any 360 degrees rotation of the big gear 7.a, the small gear 7/ big wheel 1 will rotate four times around central axle 01, covering a distance D= 4 x L= 4 X 3.14 X 16 cm= 200 cm= 2 m.
The clearance between pedals and ground is h = 4 cm.
Theoretical pedal circle is R = 01- 02 = 4 cm, D= 8 cm.

Dakoroman Drive System is ideal for small wheels, fast HPV's.
Customized components: gears, gear ratios, pedals, wheels, frames, etc, can be chosen for different applications.





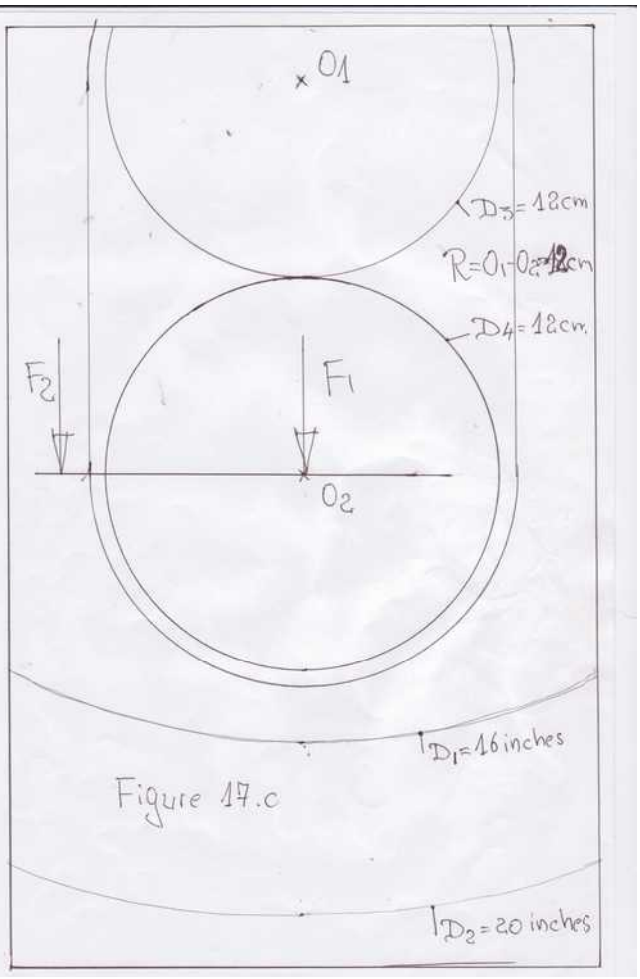


Figure 17.c

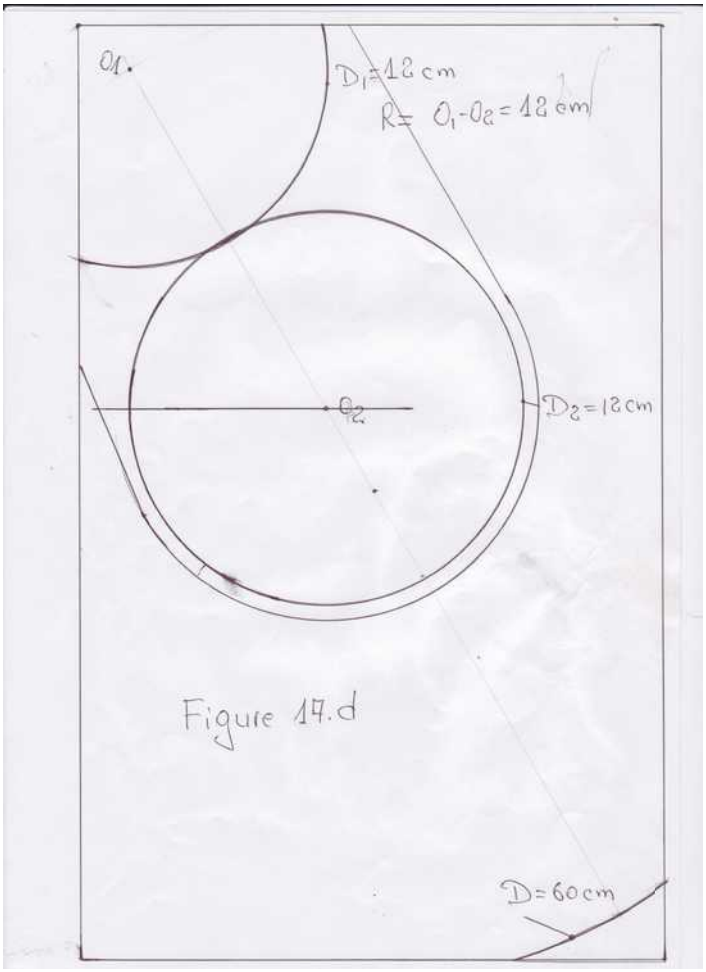


Figure 17.d