

# **A few technical comments on the CREDO project**



PTMA Lublin

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**Representative of the PTMA in the Project CREDO**



Source: Astropolis forum @Tayson



Source: PTMA MSG group



Source: Astropolis forum @Marcinos



Source: Astropolis forum @Paweł 103



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## MARATHON


The table shows the results for each team taking part in the Particle Hunters competition. List of teams sorted alphabetically - you can change the sorting by clicking on the name of a column.













ATTENTION! The number of points in the table below does not take into account bonus points - they will be in a separate table.

Information on actions and their iconography

 - See list of users with statistics (in competition) belonging to the selected team

 - See team activity chart (not yet available)

 - Go to the team's subpage at [api.credo.science](http://api.credo.science)

No.	TEAM	DETECTIONS▼	TIME	POINTS	USERS	ACTIONS
7	PTMA Warszawa	106343	8559.22	3837	11	  
6	PTMA Lublin	23640	6790.12	1830	7	  
4	KMO Międzyzlesie	18753	9452.77	2265	34	  
9	SPINCZ 2	2984	2009.35	460	5	  

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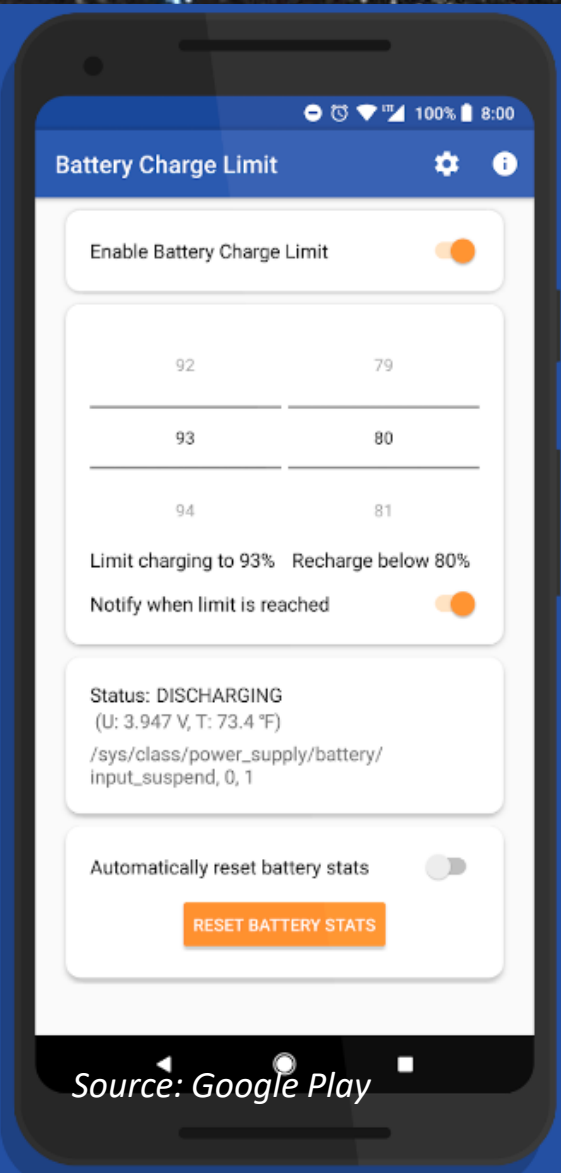
1. multichannel good quality USB charger
2. good quality USB power cord
3. cooling pad for laptop
4. mobile phone with working wi-fi
5. new original (or good quality replacements) Li-ION battery



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# Battery Charge Limit

1. application on Google Play shop
2. manages battery charging and limits the charge level (40%-80%)
3. need root procedure on Android (for SuperUser privilege)
4. complicated configuration
5. full manual on XDA Developers Forum



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Source: Samsung.com

# **Samsung Galaxy Ace 4 (SM-G357FZ - most popular)**

**cheap (35 EURO)**

**good sensitivity for muons (200  
detection per day)**

**cheap original battery  
Android 4.4.4 (KitKat)**



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Device id	All traces	Bad margin	Hot pixel	Artefact	Too Bright	(all) Detect▼	(all) % Detect	(all) Hour Detect	Time work [H]	Temp[°C]	Hour Traces	Device Model	System Version
25951	58701	0	0	0	1	58700	100	10.35	5674.164	33.34	10.35	GT-I8190	16-4.1.2
24431	53026	0	0	12	0	53014	99.98	6.14	8635.772	28.27	6.14	SM-G389F	23-6.0.1
22796	47455	0	0	0	90	47365	99.81	4.85	9761.126	31.87	4.86	GT-I8190	16-4.1.2
26341	47227	0	0	0	0	47227	100	8.09	5837.428	29.03	8.09	SM-G389F	23-6.0.1
26663	39700	0	0	0	0	39700	100	7.81	5082.322	30.01	7.81	SM-G389F	23-6.0.1
16896	39253	0	0	0	1	39252	100	5.61	7001.794	-1	5.61	GT-S7580	17-4.2.2
24019	38728	0	0	0	2	38726	99.99	8.81	4398.017	30.34	8.81	SM-G357FZ	19-4.4.4
19441	38212	0	0	0	0	38212	100	4.18	9147.584	28.47	4.18	SM-G357FZ	19-4.4.4
24010	34592	0	0	0	0	34592	100	8.03	4309.741	31.14	8.03	SM-G357FZ	19-4.4.4
20003	34023	0	0	0	0	34023	100	5.04	6750.239	29.36	5.04	SM-G357FZ	19-4.4.4
26326	32646	0	0	0	0	32646	100	9.48	3442.111	33.56	9.48	GT-I8190N	16-4.1.2
20002	30884	0	0	0	2	30882	99.99	4.92	6275.986	28.82	4.92	SM-G357FZ	19-4.4.4
24464	30671	0	0	0	0	30671	100	8.28	3704.328	27.9	8.28	SM-G357FZ	19-4.4.4
24471	30483	0	0	0	0	30483	100	7.5	4065.705	29.25	7.5	SM-G357FZ	19-4.4.4

**Samsung Galaxy s3 mini**

**Samsung Galaxy Xcover 3**

**Samsung Galaxy Trend Plus**

**Samsung Galaxy Ace 4**



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Name	Internal codename <sup>[11]</sup>	Version number(s)	Initial stable release date	Latest security patch date <sup>[16]</sup>	Latest <a href="#">Google Play Services</a> version <sup>[17][18]</sup> (release date)
		4.0.3 – 4.0.4	December 16, 2011		
<a href="#">Android Jelly Bean</a>	Jelly Bean	4.1 – 4.1.2	July 9, 2012		21.33.56 (September 2021)
		4.2 – 4.2.2	November 13, 2012		
		4.3 – 4.3.1	July 24, 2013		
		4.4 – 4.4.4	October 31, 2013	October 2017	
<a href="#">Android KitKat</a>	Key Lime Pie	4.4W – 4.4W.2	June 25, 2014	?	23.30.13 (August 2023)
		5.0 – 5.0.2	November 4, 2014 <sup>[20]</sup>	November 2017	
<a href="#">Android Lollipop</a>	Lemon Meringue Pie	5.1 – 5.1.1	March 2, 2015 <sup>[21]</sup>	March 2018	
		6.0 – 6.0.1	October 2, 2015 <sup>[22]</sup>	August 2018	
<a href="#">Android Marshmallow</a>	Macadamia Nut Cookie	7.0	August 22, 2016	August 2019	
		7.1 – 7.1.2	October 4, 2016	October 2019	
<a href="#">Android Nougat</a>	New York Cheesecake	8.0	August 21, 2017	January 2021	
		8.1	December 5, 2017	October 2021	
<a href="#">Android Oreo</a>	Oatmeal Cookie	9	August 6, 2018	January 2022	23.43.13 (November 2023)
<a href="#">Android Pie</a>	Pistachio Ice Cream <sup>[23]</sup>	10	September 3, 2019	February 2023	
<a href="#">Android 10</a>	Quince Tart <sup>[24]</sup>	11	September 8, 2020		
<a href="#">Android 11</a>	Red Velvet Cake <sup>[24]</sup>	12	October 4, 2021		
<a href="#">Android 12</a>	Snow Cone	12.1 <sup>[a]</sup>	March 7, 2022	January 2024	
<a href="#">Android 12L</a>	Snow Cone v2	13	August 15, 2022		
<a href="#">Android 13</a>	Tiramisu	14	October 4, 2023		
<a href="#">Android 14</a>	Upside Down Cake <sup>[27]</sup>	15	Q3 2024		
Android 15	Vanilla Ice Cream <sup>[28]</sup>			–	–

**no update 4.4.4 of Google Play Services from 08.2023**

**CREDO.detector app not working and not install via Google Play (need new library)**

**very old android security patch – this is dangerous for every user services on google account on mobile phone**

**in newest Android >= 9.0 CREDO.detector app not working (or working very bad) – because phone go suspend (power management )**



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# User expectations:

1. We need new CREDO.detector app for old Android (4.0-7.0) mobile phone – app not need Google Play Services and libraray (app shop)
2. We need CREDO.detector app 2.0 for Android  $\geq 9.0$  (for testing new mobile phone)
3. New DIY kit for advanced users – Raspberry PI with 4 cheap internet/WEB HD camera (old CREDO project on GitHub)



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**Thank you.**

**<https://mawmarecki.blogspot.com/>**



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