

## INDICE

Elementos De La Diadema.....	3
Instalación de EMOTIV Launcher.....	4
Conexión De Diadema Con EMOTIV.....	8
Configuración De Diadema.....	10
1. Devide fitting (Ajustes del dispositivo).....	10
2. Contact quality (Calidad de contrato).....	11
3. EGG quality (Calidad EGG).....	12
Recopilación De Datos Con Cortex APP y C#.....	12
Ejemplo:.....	18

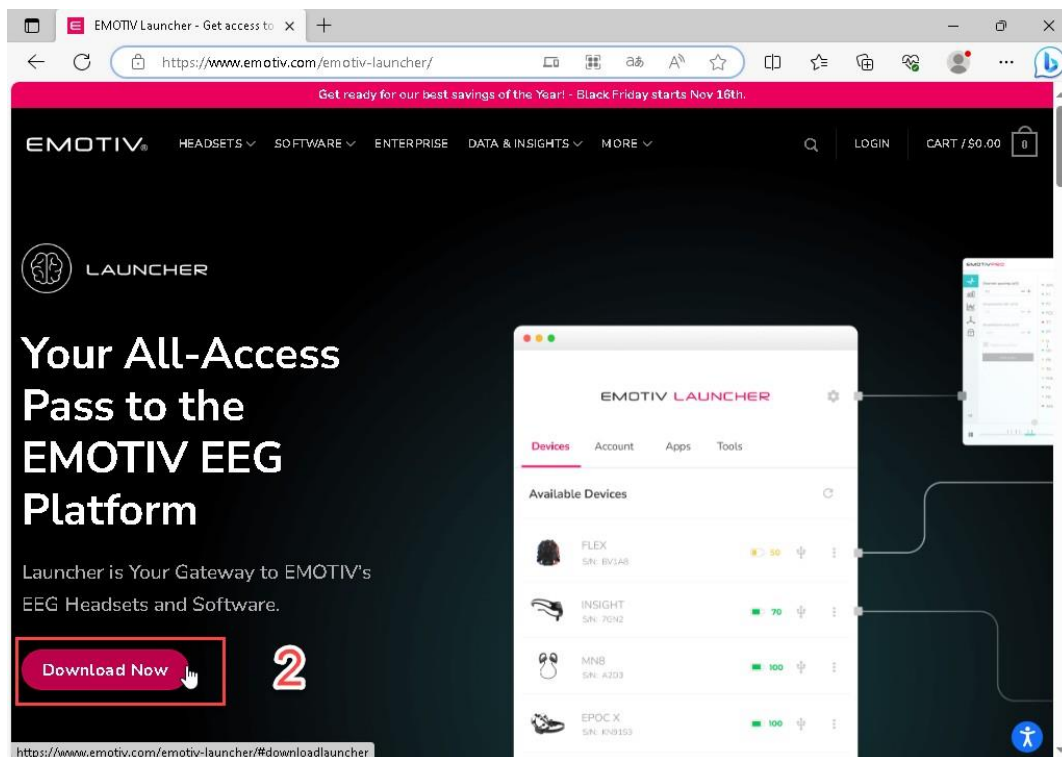
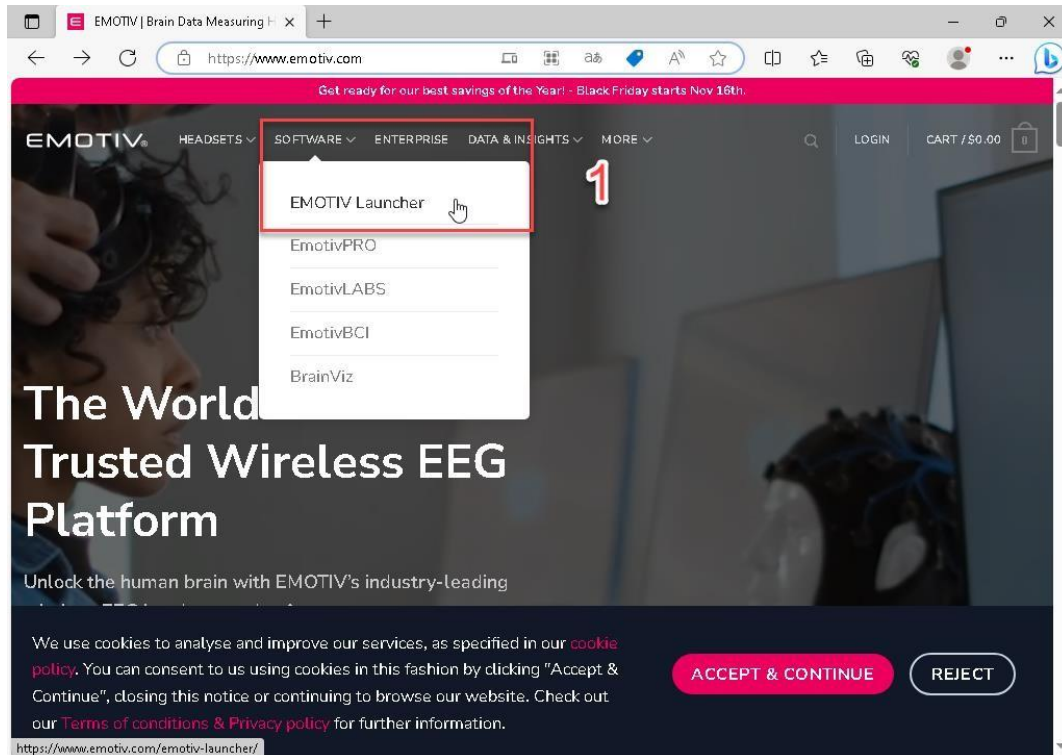
## Elementos De La Diadema

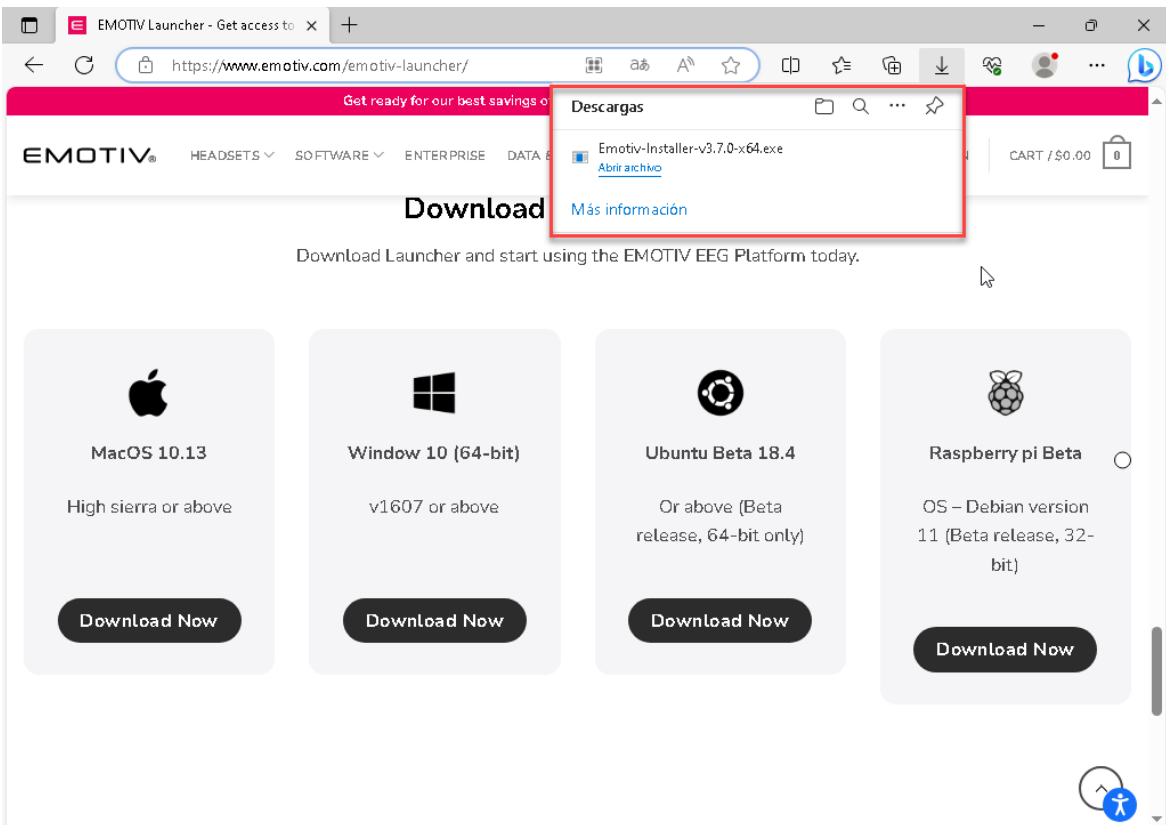
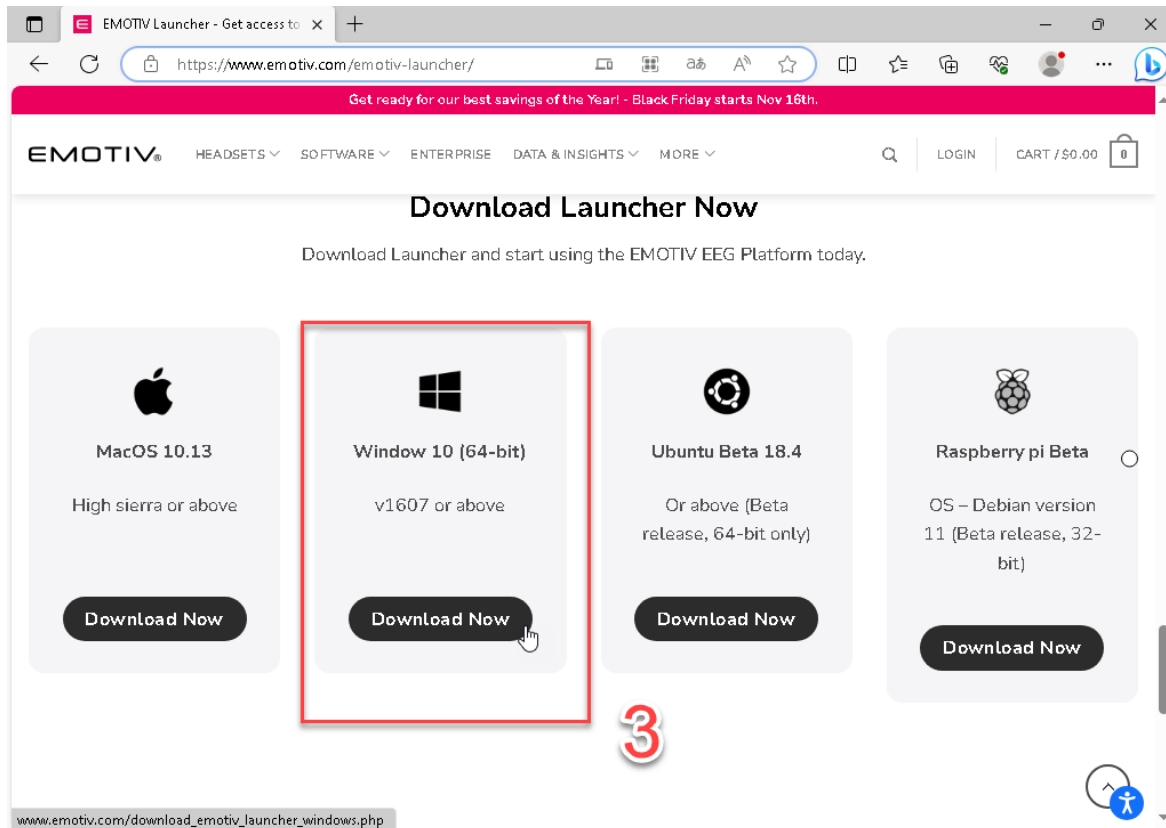
- 4 sensores gomoso: AF3, AF4, T7, T8.
- 1 sensor gomoso de tres puntas: para una mejor penetración del cabello en Pz.
- Tres Gomas\*\*\*
- Botella de liquido
- Llave hexagonal
- Receptor USB
- Cable de carga USB
- Estuche
- Diadema



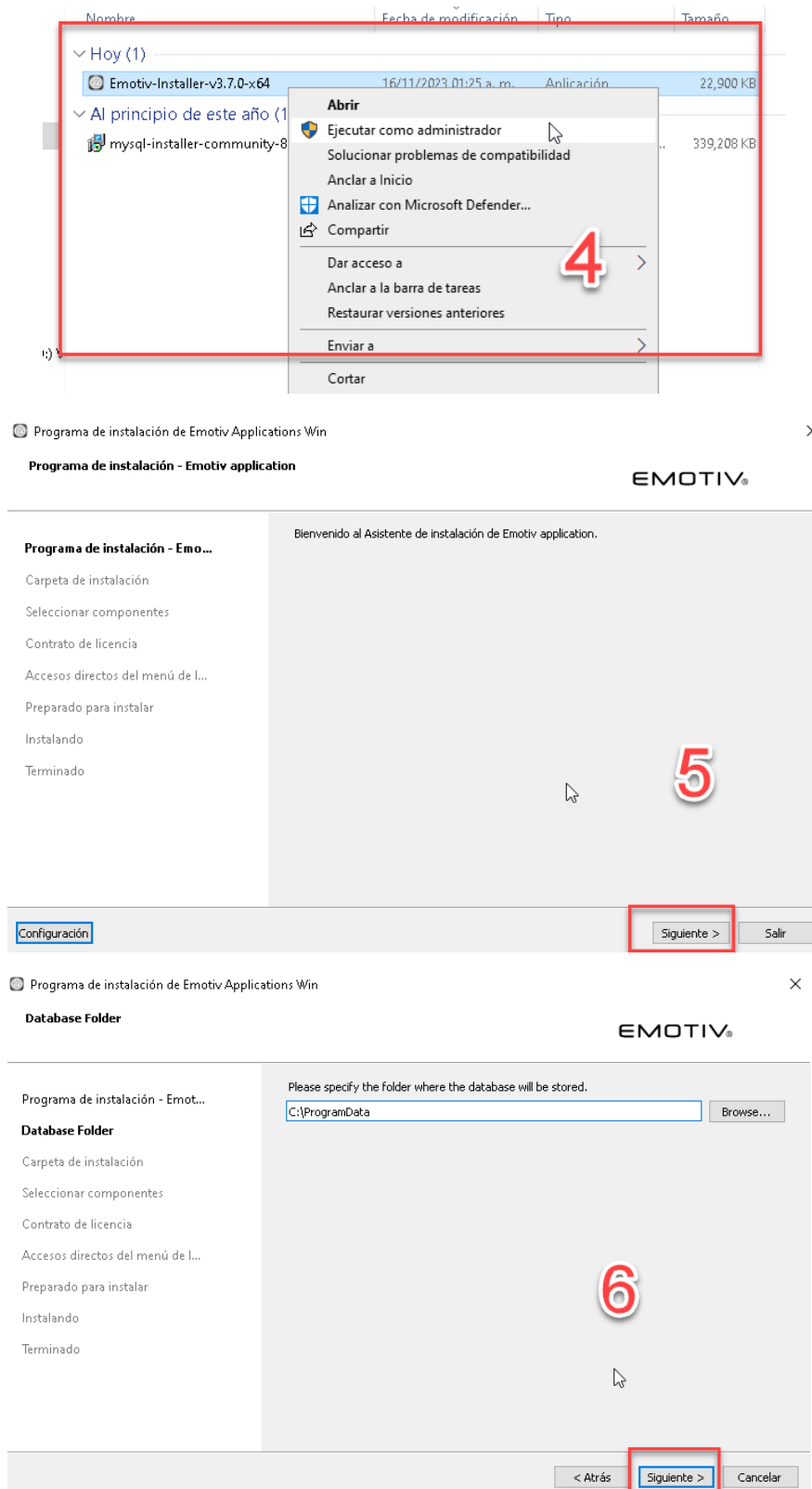
## Instalación de EMOTIV Launcher

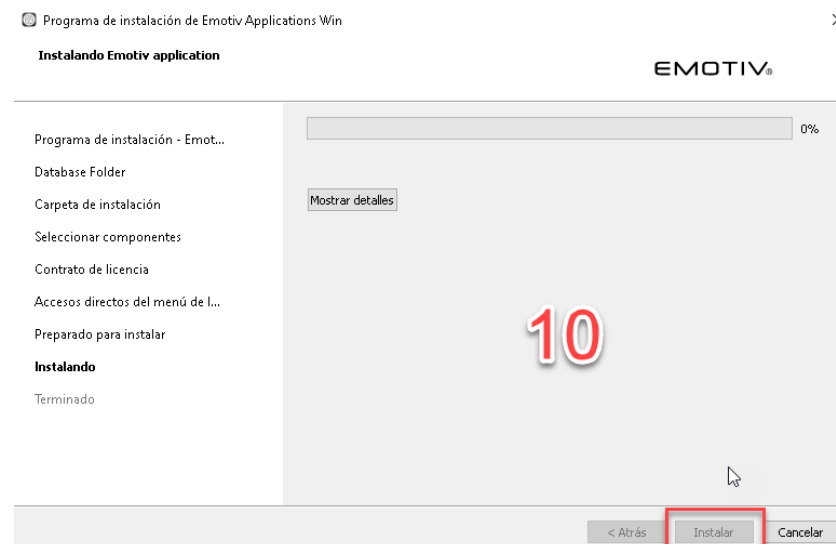
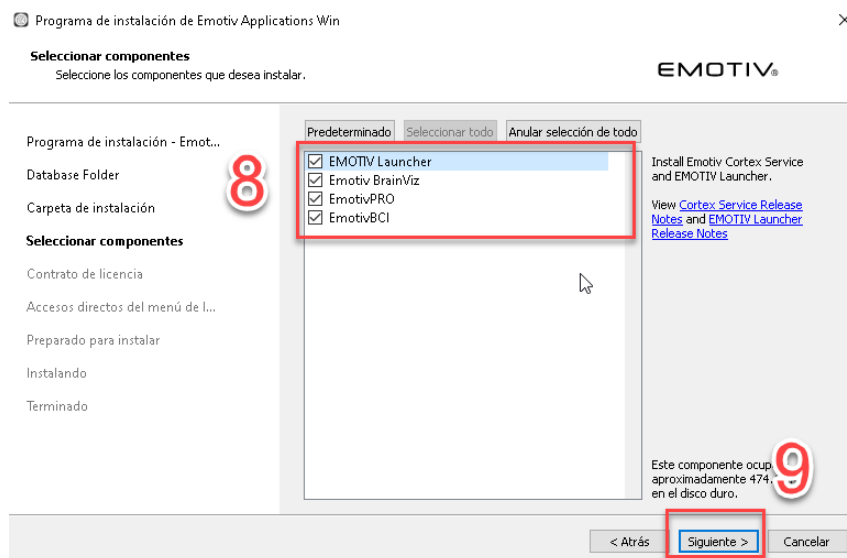
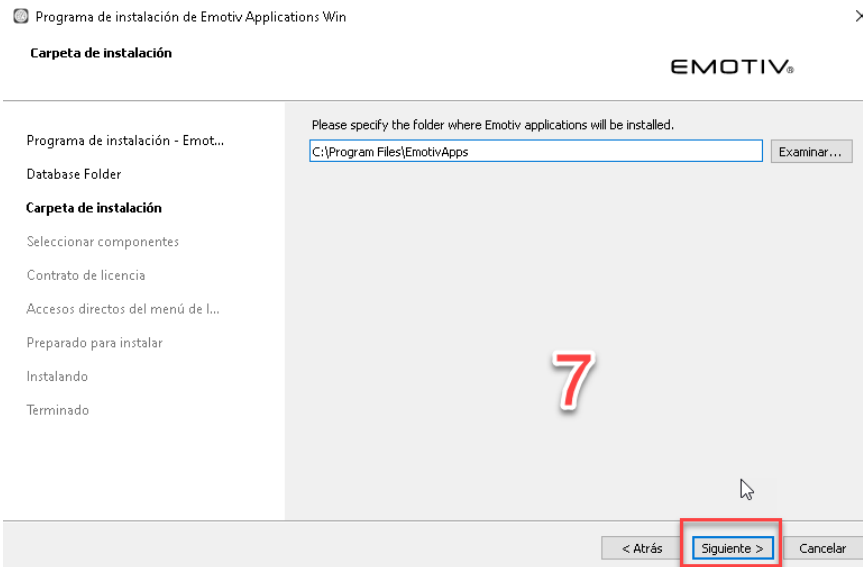
1. Ingresamos a su página <https://www.emotiv.com/get-started/> donde descargaremos EMOTIV App dependiendo de nuestro Sistema Operativo.



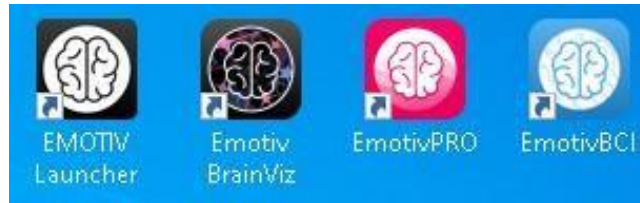


2. Lo ejecutamos como administrador. Seleccionamos la ubicación donde estará la aplicación.





3. Finalmente obtenemos la aplicación.



## Conexión De Diadema Con EMOTIV

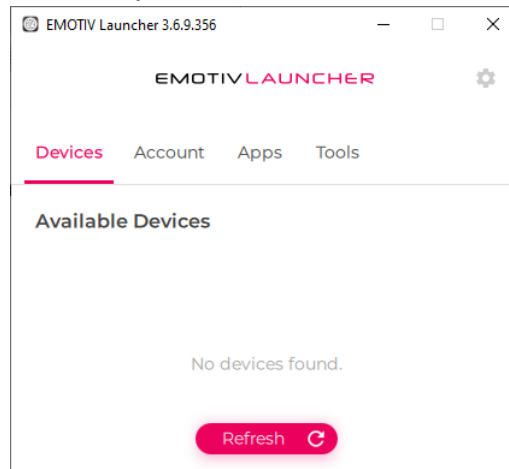
1. Iniciaremos con el siguiente Usuario (EmotivD) y contraseña.

**Usuario:** tese

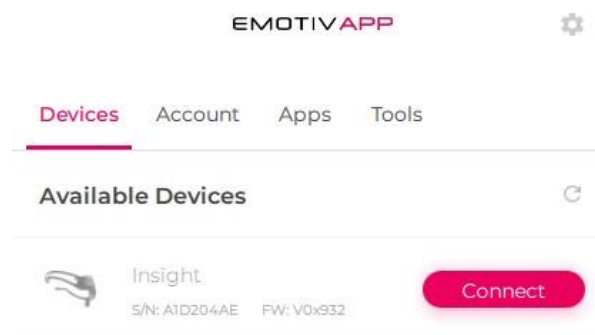
**Contraseña:** Tese1234

A screenshot of the EMOTIV Launcher 3.6.9.356 application window. The window has a title bar with the text 'EMOTIV Launcher 3.6.9.356' and standard window controls. The main content area has a light blue background with the 'EMOTIV LAUNCHER' logo at the top. Below the logo are two input fields: 'Email or EmotivID' and 'Password'. The 'Password' field has a toggle icon (an eye) to its right. Below the input fields is a link that says 'Forgot password?'. There are two buttons: a red 'Sign in' button and a blue 'Sign in with Facebook' button. At the bottom, there is a link that says 'Create account'.

2. Cuando ingresamos a la aplicación, nos mostrara la siguiente ventana.

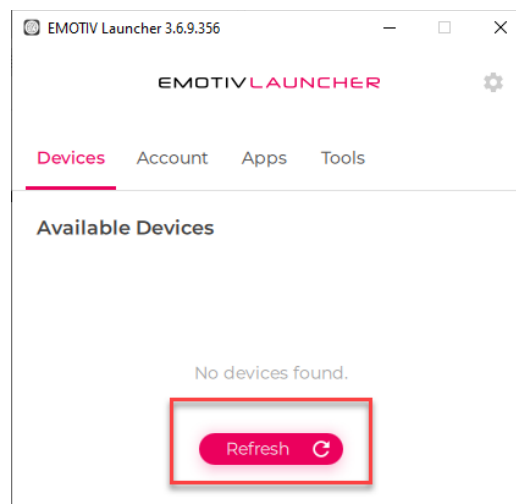


Una vez teniendo conectado el receptor USB (bluetooth) en la computadora, lo debe detectar y mostrar en la ventana.



**NOTA:**

En caso de que no aparezca presionamos el botón refrescar, Si esto no funciona, vuelva a apagar y prender la diadema.





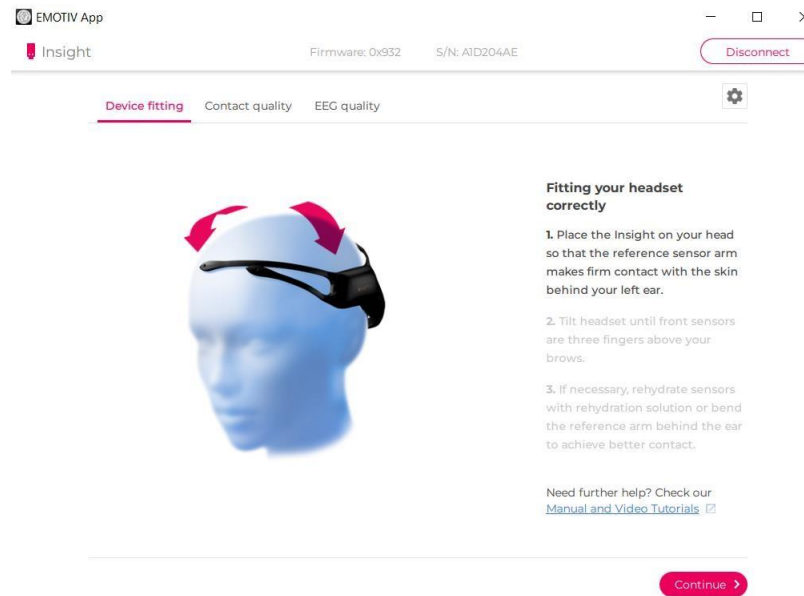
## Configuración De Diadema

Nos aparece una nueva pantalla donde nos parecerán tres pestañas.

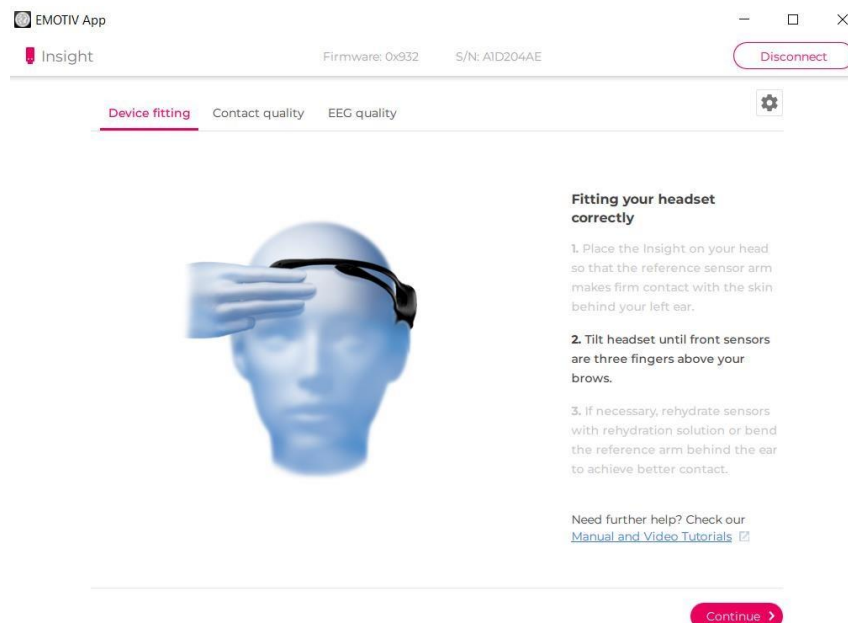
### **1. Devide fitting (Ajustes del dispositivo)**

El primer paso será para la Colocación correcta la diadema.

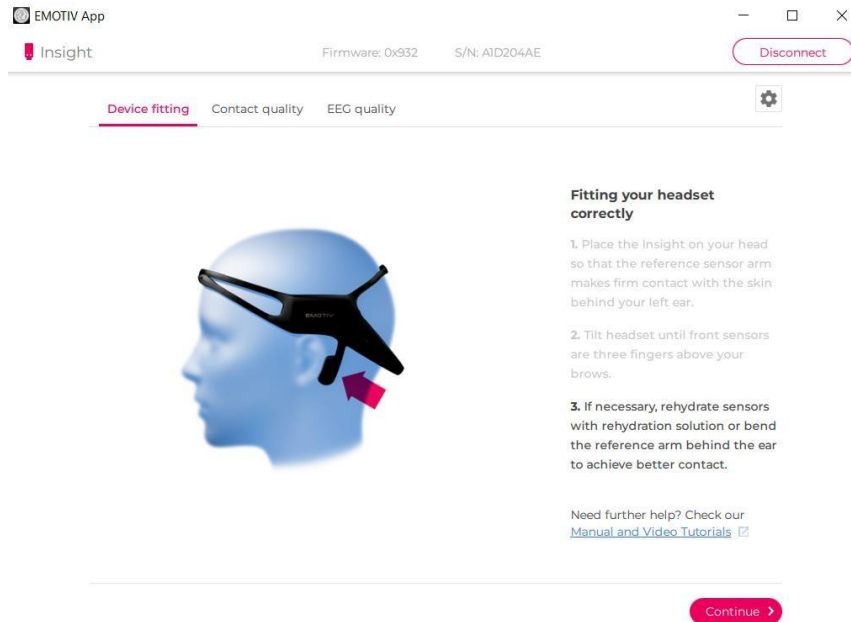
**Paso 1.** Coloque la diadema en la cabeza de modo que el brazo del sensor de referencia haga contacto firme con la piel detrás de la oreja izquierda.



**Paso 2.** Incline la diadema hasta que los sensores frontales estén tres dedos por encima de sus cejas.



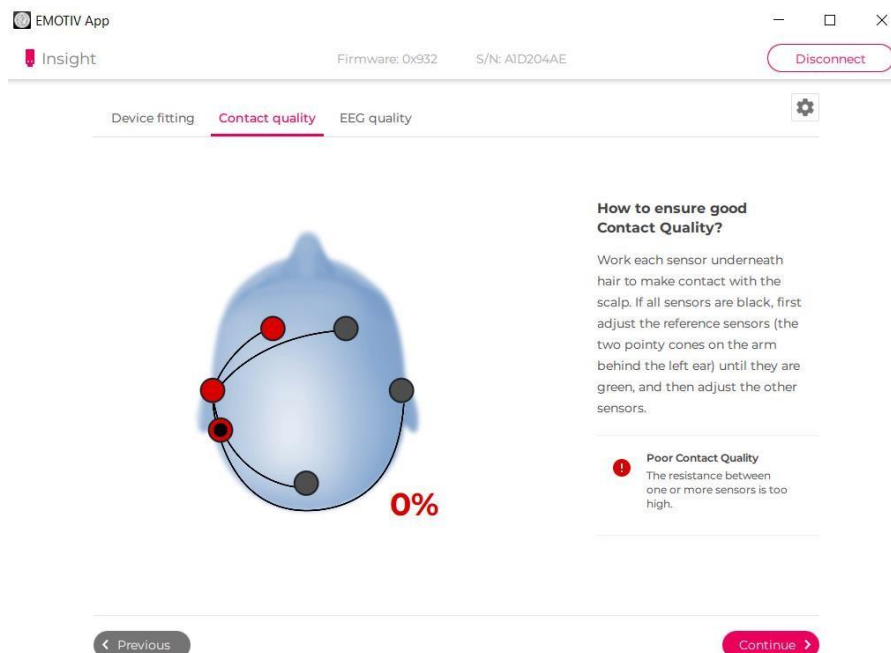
**Paso 3.** Si es necesario, rehidrate los sensores con solución de rehidratación o doble el brazo de referencia detrás de la oreja para lograr un mejor contacto.



## 2. Contact quality (Calidad de contacto)

¿Cómo garantizar una buena calidad de contacto?

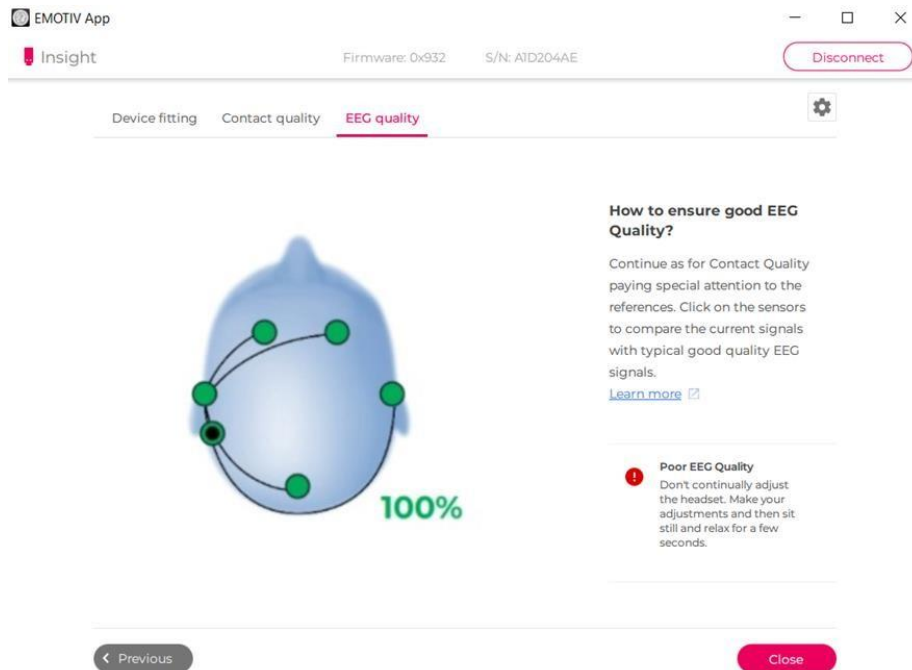
Trabaje cada sensor debajo del cabello para hacer contacto con el cuero cabelludo. Si todos los sensores son negros, primero ajuste los sensores de referencia (los dos conos puntiagudos en el brazo detrás de la oreja izquierda) hasta que estén verdes, y luego ajuste los otros sensores.



### 3. EGG quality (Calidad EGG)

#### ¿Cómo garantizar una buena calidad del electroencefalograma?

Continuar como para Calidad de Contacto prestando especial atención a las referencias. Haga clic en los sensores para comparar las señales actuales con las señales EEG típicas de buena calidad.



## Recopilación De Datos Con Cortex APP y C#

Como herramienta alternativa usaremos el programa *Csharp*, usando Visual Studio (Obligatorio).

Este código está disponible en Emotiv, en la parte de Developer. En el siguiente link nos redireccinar ese apartado, únicamente buscaremos “*Documentation & Examples*”.

Como se muestra en la imagen son tres iconos, presionáremos el en icono “*Examples*”: <https://www.emotiv.com/developer/>.

#### DOCUMENTATION & EXAMPLES



DOCUMENTATION

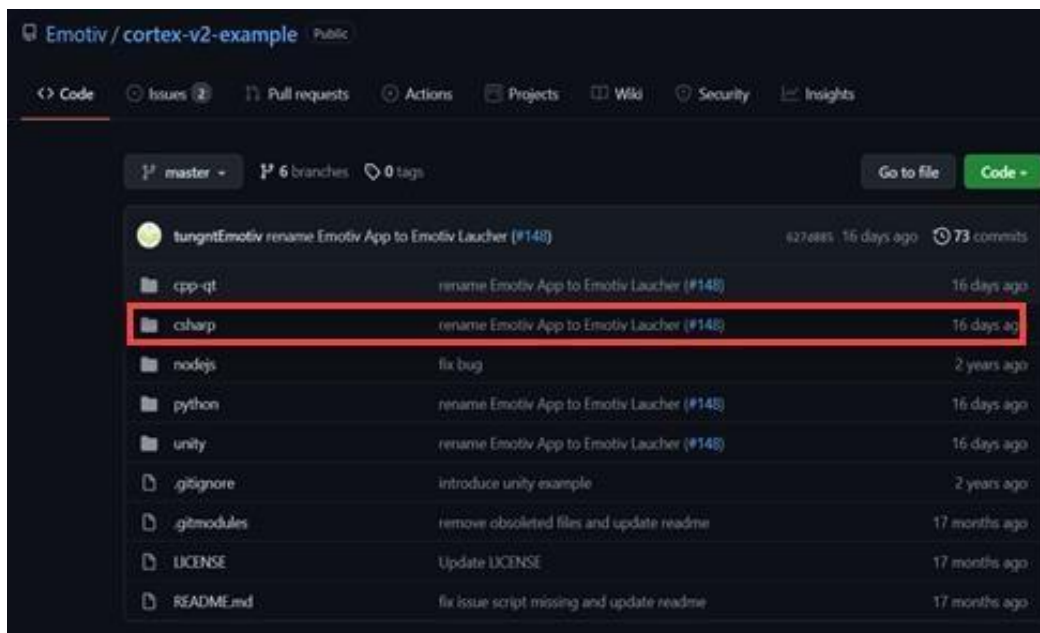


EXAMPLES

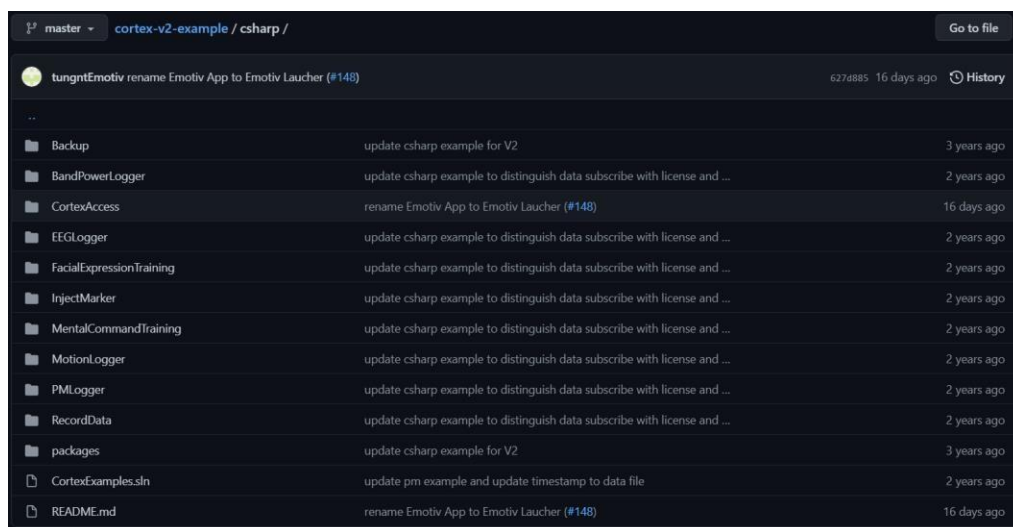


KNOWLEDGE BASE

Nos llevará directamente al repositorio de Emotiv en GitHub (<https://github.com/Emotiv/cortex-v2-example>) y nos aparecerá lo que se muestra en la imagen.

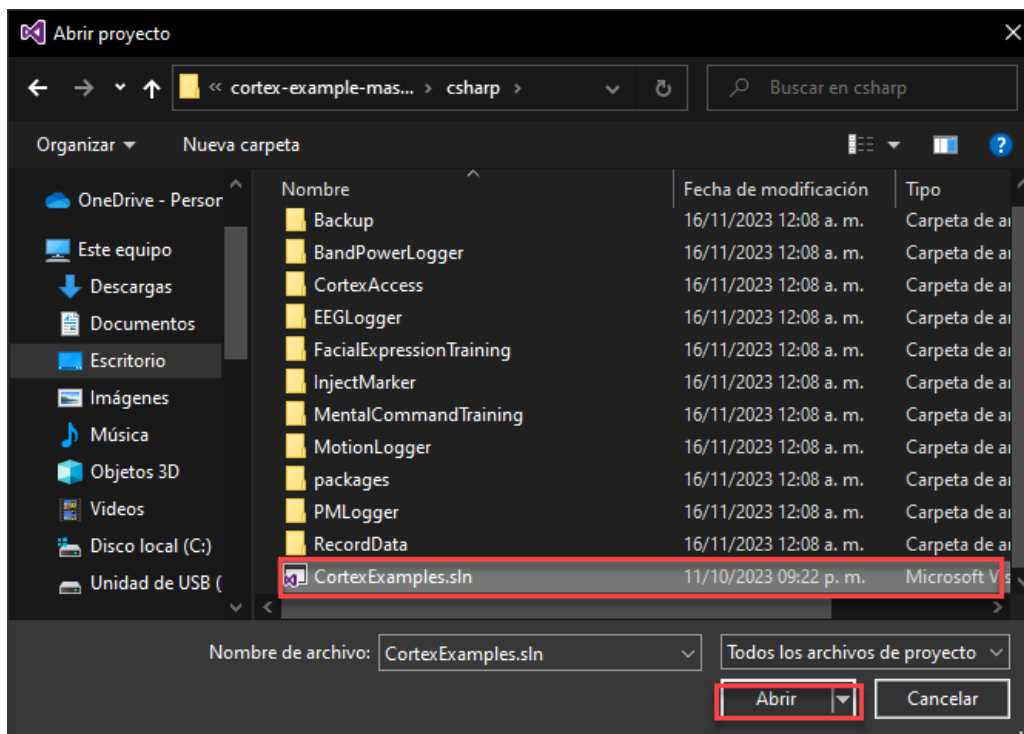


Y buscaremos la carpeta *Csharp*, ya que es el Cortex API en C#.

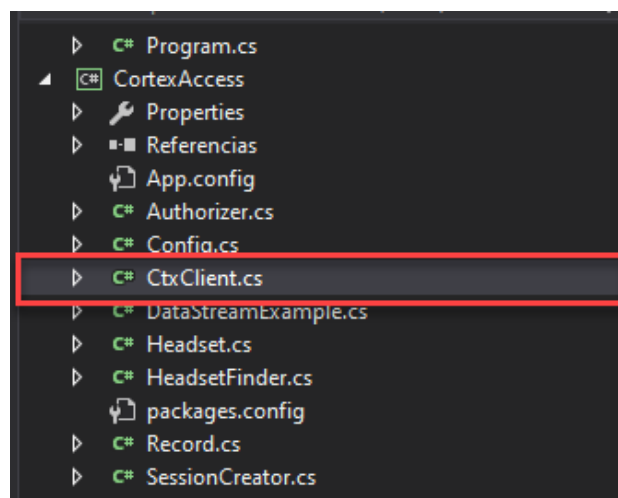


<https://github.com/Emotiv/cortex-v2-example/tree/master/csharp>

Abrimos el proyecto con el IDE Visual Studio (2014 o superior).



Antes de ejecutar el programa realizaremos algunas modificaciones, abriremos el archivo "CtxClient.cs" y modificaremos el método Authorize.

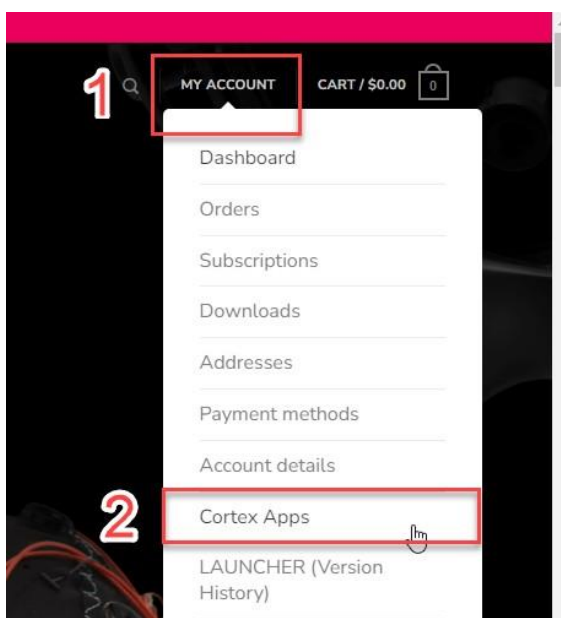


Y realizaremos los siguientes cambios en el código fuente:

```
532 // Authorize
533 3 referencias
534 public void Authorize(string licenseID, int debitNumber)
535 {
536     JObject param = new JObject();
537     param.Add("clientId", Config.AppClientId);
538     param.Add("clientSecret", Config.AppClientSecret);
539     if (string.IsNullOrEmpty(licenseID)) // Colocar el signo ! (Codigo Original)
540     {
541         //param.Add("license", licenseID);
542         param.Add("debit", 1);
543     }
544     // Codigo Añadido - Inicio
545     else
546     {
547         param.Add("license", licenseID);
548         param.Add("debit", debitNumber);
549     }
550     // Codigo Añadido - Final
551     SendTextMessage(param, "authorize", true);
552 }
```

Cuando localicemos la línea de código 541, cambiaremos el 0 por el 1. Esto para que nos permita la API de Emotiv acceder a los permisos. Después procedemos a ejecutar el programa.

```
537 param.Add("clientSecret", Config.AppClientSecret);
538 if (String.IsNullOrEmpty(licenseID))
539 {
540     param.Add("debit", 1);
541 }
542 else
```



El siguiente paso es generar dos 2 claves para poder utilizar el programa, el cual necesitaremos iniciar sesión en la plataforma Emotiv (<https://www.emotiv.com/get-started/>) y dirigirnos al apartado “MY ACCOUNT” y damos click a la opción “Cortex Apps”.

Aceptamos los términos y condiciones y damos click al botón “Continuar”.

EL BLACK FRIDAY ESTÁ AQUÍ: 20 % DE DESCUENTO EN TODA LA TIENDA. USA EL CÓDIGO: BLACKFRIDAY23

EMOTIV® AURICULARES ▾ SOFTWARE ▾ EMPRESA DATOS Y CONOCIMIENTOS ▾ MÁS ▾

Q MI CUENTA CARRITO / \$ 0.00 0

## APLICACIONES DE CORTEZA

APLICACIONES DE CORTEZA

alejandro

PANEL

PEDIDOS

SUSCRIPCIONES

DESCARGAS

DIRECCIONES

MÉTODOS DE PAGO

DETALLES DE LA CUENTA

APLICACIONES DE CORTEZA

LAZAROS (HISTORIAL DE VERSIONES)

### ACUERDO DE LICENCIA DEL DESARROLLADOR

Lea y acepte nuestra última Licencia de desarrollador para crear una ID de aplicación Cortex y comenzar a desarrollar con EMOTIV.

☒ He leído y acepto la **Licencia de Desarrollador de EMOTIV**

☒ Tengo al menos 16 años.

CONTINUAR

Nos mostrará la siguiente ventana, en el cuál, crearemos las dos claves que necesitamos para continuar.

EL BLACK FRIDAY ESTÁ AQUÍ: 20 % DE DESCUENTO EN TODA LA TIENDA. USA EL CÓDIGO: BLACKFRIDAY23

EMOTIV® AURICULARES ▾ SOFTWARE ▾ EMPRESA DATOS Y CONOCIMIENTOS ▾ MÁS ▾

Q MI CUENTA CARRITO / \$ 0.00 0

## APLICACIONES DE CORTEZA

APLICACIONES DE CORTEZA

alejandro

PANEL

PEDIDOS

SUSCRIPCIONES

DESCARGAS

DIRECCIONES

MÉTODOS DE PAGO

DETALLES DE LA CUENTA

APLICACIONES DE CORTEZA

LAZAROS (HISTORIAL DE VERSIONES)

Nombre de la aplicación: Hola

Manejar: com.prueba\_id

ID de aplicación: Hola

Registrar Solicitud

☐ Mi aplicación requiere acceso a EEG

Una aplicación que requiera EEG necesitará una licencia de API Raw EEG válida y solo podrá ser utilizada por el desarrollador hasta que se haya implementado. Comuníquese con EMOTIV cuando esté listo para implementar. [Si su aplicación utiliza API básica, no marque esta casilla.](#)

Se asignaremos un nombre, en este caso, lo nombraremos “Clave” en el campo “App Name o Nombre de la aplicación” y damos click al botón “Register Application o Registrar Solicitud”.

Nombre de la aplicación: clave

Manejar: com.prueba\_id

ID de aplicación: clave

1

2 Registrar Solicitud

En la parte inferior de la plataforma nos generó 2 claves (Client Secret y Client ID), estas dos claves generadas nos permitirán ejecutar el programa y obtener los datos por medio de la diadema.

☐ My App requires EEG access

An app that requires EEG will need a valid Raw EEG API license and only be usable by the developer until it has been deployed. Please contact EMOTIV when you are ready to deploy. [If your app is using basic API, please don't tick this box.](#)

**Clave 1**

Client Secret

Please take a note of this now as the secret will be hidden after you leave this page.

Copy this code

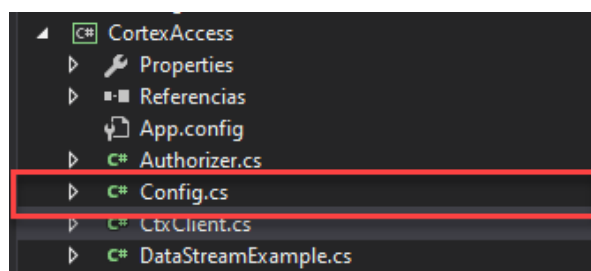
XrvH9dleqWVd1Qp5D6nghpEkTmhw6kcMAYHodiCxVR8LDRg1

Copy to clipboard

App Name	App ID	Client ID	EEG
clave	com.prueba_id.clave	JHrI4ft0TBWHD9;	No

**Nota:** La clave “Client Secret”, será necesaria que la guardes en un lugar seguro, ya que esta clave es necesaria y dispensable en conjunto de la clave “Client ID” para el funcionamiento del programa, sin embargo, esta clave no se podrá recuperar en caso de extravió, en caso contrario, será necesario volver a generar una nueva clave.

El siguiente paso es abrir el archivo “Config.cs”.





Dentro del código existen 2 variables (AppClientId y AppClientSecret).

```
public static string AppClientId = clientID[0];  
public static string AppClientSecret = clientSecret[0];
```

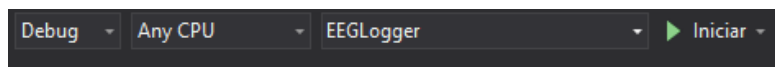
En estas 2 variables, colocaremos las 2 claves obtenidas en la plataforma Cortex APPS, la clave Client ID estará declarada en la variable appClientId, y la clave Client Secret estará declarada en la variable appClientSecret.

### Ejemplo:

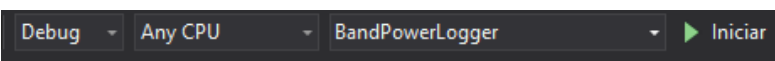
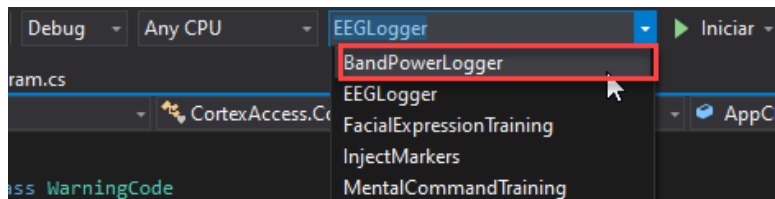
```
public static string AppClientId = "UHCSmpuV0uWXBG1zaJSep0iyZ5sV9aaC8myJyt42";  
public static string AppClientSecret = "dFwAAj5njHoIHeo8hu6TbHkJwpGqMxnTJYmAKXrV5DUMAvRMTMSHsPraQ7mBtYxxVmR0Nov4QBR
```

Una vez teniendo estas modificaciones realizadas en el código fuente del proyecto, ahora procedemos a ejecutar el programa.

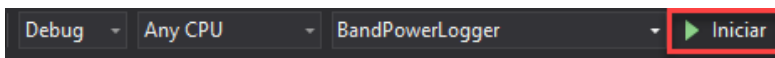
Antes de ejecutar el programa, cambiaremos la siguiente configuración, en la parte superior de la pantalla, cambiaremos la siguiente opción.



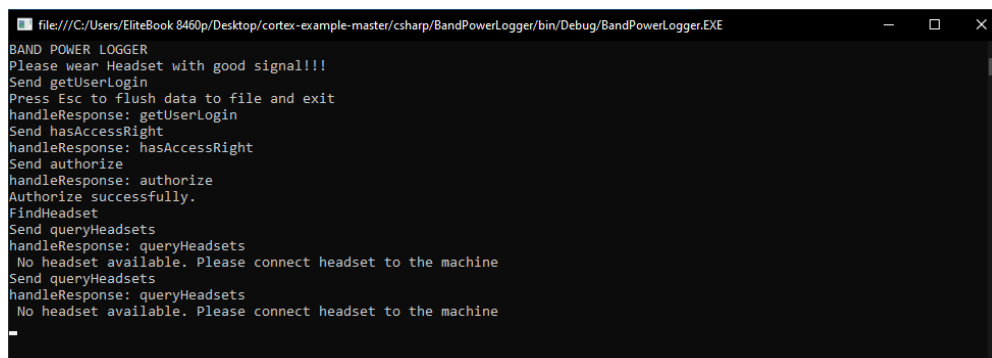
Seleccionamos la opción “BandpowerLogger”.



Y ejecutamos el programa.



Si al ejecutar el programa nos muestra una ventana igual a la siguiente imagen, significa que todos los pasos se realizaron de forma correcta.



En este caso, el programa nos indica que conectemos la diadema al equipo para la recopilación de los datos, esto quiere decir que está listo el programa para usarse.

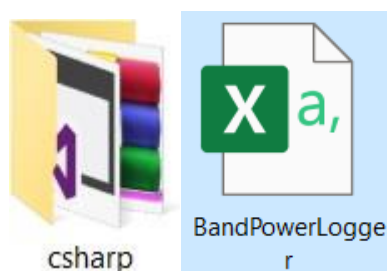
**NOTA:** Es necesario tener abierto el programa “*EMOTIV Launcher*” abierto y con la sesión abierta para que el programa funcione de forma correcta, de lo contrario, no funcionará.

Cuando el programa este ejecutándose y la diadema esté conectada al equipo, toda la información que capture la diadema se almacenara en un archivo Excel con extensión CSV llamado “*BandPowerLogger*”.

Para tener acceso al archivo Excel es necesario ir al siguiente directorio que se encuentra dentro de los archivos del programa.

**Directorio:**

***cortex-example-master > csharp > BandPowerLogger > bin > Debug***



Nombre	Fecha de modificación	Tipo	Tamaño
BandPowerLogger.csv	16/11/2023 04:24 p. m.	Archivo de valores...	0 KB
BandPowerLogger.exe	16/11/2023 04:24 p. m.	Aplicación	7 KB
BandPowerLogger.exe.config	11/10/2023 09:22 p. m.	XML Configuratio...	1 KB
BandPowerLogger.pdb	16/11/2023 04:24 p. m.	Archivo PDB	14 KB
BandPowerLogger.vshost.exe	16/11/2023 04:25 p. m.	Aplicación	23 KB
BandPowerLogger.vshost.exe.config	11/10/2023 09:22 p. m.	XML Configuratio...	1 KB
BandPowerLogger.vshost.exe.manifest	07/12/2019 03:10 a. m.	Archivo MANIFEST	1 KB
CortexAccess.dll	16/11/2023 04:24 p. m.	Extensión de la ap...	51 KB
CortexAccess.pdb	16/11/2023 04:24 p. m.	Archivo PDB	92 KB
Newtonsoft.Json.dll	13/11/2023 09:08 p. m.	Extensión de la ap...	696 KB
Newtonsoft.Json.xml	13/11/2023 09:08 p. m.	Documento XML	697 KB
SuperSocket.ClientEngine.dll	11/10/2023 09:22 p. m.	Extensión de la ap...	41 KB
WebSocket4Net.dll	11/10/2023 09:22 p. m.	Extensión de la ap...	61 KB

En este documento guardará las lecturas que hizo la diadema mientras este en uso, mostrando el tiempo (***TiempoSpan***) y los cinco electrodos de la diadema (***AF3, AF4, T7, T8 y PZ***), y cada uno de ellos junto con sus cinco tipos de ondas (***Theta, Alpha, Gamma, Beta low y Beta high***).

## Movimientos del Cubo

### Datos iniciales:

1	Timestamp	Fecha	Hora	AF3/theta	AF3/alpha	AF3/betaL	AF3/betaH	AF3/gamma	T7/theta	T7/alpha	T7/betaL	T7/betaH	T7/gamma	Pz/theta	Pz/alpha	Pz/betaL	Pz/betaH	Pz/gamma	T8/theta	T8/alpha	T8/betaL	T8/betaH	T8/gamma	AF4
2	1706035580	23/01/2024	11:40:11	894.689	276.071	131.979	57.39	15.16	257.305	97.181	50.901	24.105	4.507	21063.233	6627.249	2160.706	689.067	36.622	542.332	215.289	116.197	55.554	15.598	
3	1706035580	23/01/2024	11:40:11	942.75	303.342	145.938	59.036	16.395	243.263	97.609	53.464	23.148	5.187	20521.137	6699.052	2237.038	685.173	34.922	541.309	230.883	128.389	57.992	16.786	
4	1706035580	23/01/2024	11:40:11	956.232	314.833	150.836	56.268	16.216	209.954	90.806	52.185	20.514	5.417	18264.477	6240.769	2161.466	632.109	30.906	493.97	228.663	130.409	55.878	16.514	
5	1706035580	23/01/2024	11:40:11	923.63	302.733	142.93	49.403	14.588	168.058	78.079	46.878	16.853	5.102	14917.908	5335.475	1927.541	541.153	26.096	413.384	206.91	120.053	49.424	14.82	
6	1706035580	23/01/2024	11:40:11	840.613	265.665	122.11	39.594	11.878	129.5	61.777	38.312	12.833	4.341	11548.439	4154.133	1564.59	427.265	22.07	321.954	168.255	98.413	39.749	12.128	
7	1706035580	23/01/2024	11:40:11	728.672	209.858	92.521	28.938	8.803	110.481	45.289	28.245	9.137	3.403	9058.463	2896.688	1147.176	308.747	19.929	251.748	121.038	70.586	29.071	9.131	
8	1706035580	23/01/2024	11:40:11	632.16	146.325	61.813	20.324	6.189	129.461	31.62	19.039	6.533	2.622	7924.504	1795.005	772.559	203.605	20.028	235.925	75.553	44.149	20.451	6.554	
9	1706035580	23/01/2024	11:40:11	586.459	90.107	37.945	16.113	4.651	194.295	23.164	12.824	5.586	2.239	8481.041	1033.657	534.916	130.07	22.174	295.405	41.816	26.144	16.467	4.893	
10	1706035581	23/01/2024	11:40:12	615.74	53.946	25.407	17.138	4.374	303.535	21.488	10.733	6.473	2.301	10732.586	704.209	489.583	101.841	25.886	432.656	25.436	19.926	18.02	4.29	
11	1706035581	23/01/2024	11:40:12	712.02	45.175	23.087	22.164	5.188	440.405	28.642	12.144	8.852	2.8	14951.728	945.727	634.411	115.63	32.188	615.774	29.178	23.379	23.656	4.702	
12	1706035581	23/01/2024	11:40:12	865.066	77.54	32.766	33.887	10.917	584.86	53.98	19.807	16.137	7.322	22081.067	1975.575	908.922	161.26	46.803	817.033	68.534	37.686	36.389	10.626	
13	1706035581	23/01/2024	11:40:12	1062.096	184.744	74.425	68.666	34.77	734.318	121.537	49.474	42.044	27.623	32454.124	4039.794	1229.219	237.534	79.161	1031.287	180.615	82.65	74.162	36.871	
14	1706035581	23/01/2024	11:40:12	1308.396	398.841	173.901	146.289	91.002	888.445	254.331	119.837	102.055	76.295	45278.501	7209.465	1529.208	353.61	134.546	1266.58	401.018	184.651	158.514	99.246	
15	1706035581	23/01/2024	11:40:12	1581.434	711.874	337.747	271.318	182.226	1052.206	450.122	235.521	199.389	155.701	57538.142	11109.969	1746.719	501.559	207.197	1523.433	723.482	350.605	294.388	200.514	
16	1706035581	23/01/2024	11:40:12	1837.82	1062.476	539.653	423.043	292.551	1202.681	671.5	377.7	317.568	251.99	65642.385	14826.842	1830.785	651.77	279.714	1767.568	1085.067	553.837	459.164	322.889	
17	1706035581	23/01/2024	11:40:12	2023.977	1352.491	725.14	559.721	391.131	1312.765	856.054	507.702	423.9	338.248	66890.273	17296.104	1762.706	762.353	329.562	1945.612	1383.761	739.216	607.259	432.131	
18	1706035582	23/01/2024	11:40:13	2060.615	1487.101	833.431	635.629	445.091	1330.154	942.83	582.822	483	385.774	60586.296	17744.798	1568.077	797.39	339.294	1978.387	1521.577	845.809	688.959	491.864	
19	1706035582	23/01/2024	11:40:13	1918.8	1419.309	825.664	622.606	434.968	1237.167	900.935	576.106	473.349	377.522	48678.074	16013.429	1298.621	742.398	305.098	1836.744	1450.404	834.752	673.972	480.688	
20	1706035582	23/01/2024	11:40:13	1603.293	1170.85	704.273	524.133	364.245	1030.294	743.51	489.713	397.975	316.434	34859.859	12696.513	1012.547	612.692	238.727	1523.751	1193.363	708.744	566.38	402.55	
21	1706035582	23/01/2024	11:40:13	1200.893	824.391	511.261	373.796	257.647	763.117	523.065	353.47	282.939	223.98	22815.189	8775.546	760.999	447.896	162.354	1122.826	836.539	510.967	402.831	284.806	
22	1706035582	23/01/2024	11:40:13	821.345	483.312	308.237	219.071	149.196	504.448	305.968	210.943	164.883	129.78	15446.9	5295.105	562.931	292.31	98.656	744.135	486.935	304.302	235.135	165.054	
23	1706035582	23/01/2024	11:40:13	543.834	229.129	148.318	99.916	66.682	310.722	144.413	99.307	74.268	58.035	13365.106	2952.337	415.883	176.968	60.741	465.569	227.488	142.611	106.494	73.979	
24	1706035582	23/01/2024	11:40:13	389.758	89.018	54.569	32.454	20.776	202.109	55.356	34.446	23.372	18.07	14956.31	1829.148	309.805	109.906	48.016	313.118	84.584	48.901	34.157	23.349	
25	1706035582	23/01/2024	11:40:13	342.829	40.458	17.254	7.587	4.378	170.216	23.851	9.22	5.055	3.753	18102.725	1591.291	237.953	78.891	49.773	270.106	33.338	12.747	7.92	5.289	
26	1706035583	23/01/2024	11:40:14	337.423	37.267	8.398	3.364	1.841	170.027	20.694	3.924	2.301	1.496	20888.274	1771.674	197.621	64.685	54.031	270.891	26.717	5.366	3.72	2.503	
27	1706035583	23/01/2024	11:40:14	328.771	41.922	5.503	2.897	1.715	168.576	22.756	2.826	2.19	1.329	21817.248	1972.209	178.009	54.593	54.145	269.088	28.21	3.785	3.301	2.347	
28	1706035583	23/01/2024	11:40:14	307.706	43.839	4.201	2.621	1.567	158.259	23.8	2.456	2.074	1.133	20511.565	2030.865	158.43	46.596	48.557	253.415	28.331	3.295	2.924	2.128	
29	1706035583	23/01/2024	11:40:14	274.471	41.547	4.347	2.501	1.391	139.61	23.067	2.552	1.932	0.915	17144.545	1904.423	137.193	40.849	38.714	224.189	26.649	3.769	2.577	1.838	
30	1706035583	23/01/2024	11:40:14	231.144	35.392	5.333	2.469	1.211	112.981	20.481	2.807	1.755	0.711	12781.141	1607.117	119.947	37.14	27.473	182.452	23.467	4.775	2.3	1.521	
31	1706035583	23/01/2024	11:40:14	186.163	27.441	6.545	2.457	1.048	85.717	16.69	3.031	1.554	0.556	8530.542	1229.574	106.227	35.301	17.67	138.293	19.655	5.845	2.156	1.224	
32	1706035583	23/01/2024	11:40:14	150.664	20.365	7.628	2.47	0.921	63.117	12.85	3.204	1.382	0.467	5566.558	896.295	96.103	36.96	11.135	102.332	16.308	6.734	2.207	0.984	
33	1706035583	23/01/2024	11:40:14	125.314	16.596	8.388	2.604	0.836	48.821	10.102	3.33	1.302	0.44	3965.693	712.914	93.072	43.968	8.195	78.772	14.76	7.354	2.472	0.81	
34	1706035584	23/01/2024	11:40:15	104.864	16.854	8.727	2.962	0.789	38.341	8.988	3.402	1.343	0.456	3240.316	714.246	101.981	57.512	7.945	62.964	15.834	7.676	2.903	0.689	
35	1706035584	23/01/2024	11:40:15	87.04	20.444	8.783	3.608	0.79	31.054	9.454	3.497	1.513	0.494	2957.477	876.516	131.007	77.36	9.442	53.373	20.101	7.978	3.419	0.618	
36	1706035584	23/01/2024	11:40:15	73.701	26.343	8.868	4.529	0.861	25.414	11.171	3.695	1.795	0.545	2907.689	1165.53	184.133	102.303	12.319	49.296	27.893	8.666	3.937	0.609	
37	1706035584	23/01/2024	11:40:15	66.52	32.692	9.226	5.575	0.999	22.28	13.305	3.997	2.13	0.602	2984.666	1491.825	257.976	128.08	16.074	51.146	37.871	9.95	4.376	0.664	
38	1706035584	23/01/2024	11:40:15	64.092	37.444	9.792	6.487	1.162	19.65	14.92	4.253	2.43	0.656	3006.325	1746.717	334.14	148.197	19.661	55.456	47.396	11.57	4.666	0.771	

## Primer movimiento (Derecha)

4491	1706036141	23/01/2024	11:49:32	29.759	5.923	2.993	1.339	1.116	19.485	2.477	2.539	3.061	1.864	5.94	4.238	1.221	0.666	0.851	19.603	3.279	0.892	2.106	2.601
4492	1706036141	23/01/2024	11:49:32	36.359	7.728	3.371	1.482	1.133	17.559	2.838	2.666	3.152	1.785	5.338	5.296	1.253	0.68	0.863	19.298	3.652	1.107	1.855	2.476
4493	1706036141	23/01/2024	11:49:32	47.555	9.882	3.97	1.688	1.195	15.969	2.999	2.756	3.031	1.709	4.676	6.254	1.396	0.708	0.891	19.009	4.096	1.49	1.701	2.368
4494	1706036141	23/01/2024	11:49:32	61.736	11.886	4.644	1.906	1.291	15.222	3.043	2.733	2.694	1.665	4.236	6.853	1.621	0.727	0.918	19.088	4.56	1.982	1.683	2.264
4495	1706036141	23/01/2024	11:49:32	74.522	13.158	5.165	2.078	1.396	15.507	3.125	2.583	2.211	1.67	4.08	6.984	1.868	0.729	0.932	19.768	5.03	2.453	1.77	2.156
4496	1706036141	23/01/2024	11:49:32	80.785	13.21	5.321	2.167	1.485	16.505	3.364	2.358	1.701	1.729	4.239	6.692	2.062	0.72	0.93	20.746	5.479	2.751	1.909	2.051
4497	1706036142	23/01/2024	11:49:33	78.228	12.04	5.061	2.167	1.538	17.696	3.816	2.183	1.296	1.831	4.693	6.095	2.186	0.714	0.918	21.696	5.892	2.765	2.075	1.966
4498	1706036142	23/01/2024	11:49:33	67.659	9.939	4.516	2.1	1.546	18.626	4.365	2.178	1.078	1.95	5.413	5.304	2.271	0.713	0.906	22.382	6.157	2.482	2.241	1.912
4499	1706036142	23/01/2024	11:49:33	53.504	7.329	3.911	2.001	1.509	19.246	4.8	2.402	1.052	2.05	6.468	4.416	2.355	0.711	0.898	23.122	6.189	2.012	2.423	1.897
4500	1706036142	23/01/2024	11:49:33	40.565	4.912	3.456	1.91	1.445	19.811	4.909	2.839	1.173	2.11	7.974	3.507	2.444	0.695	0.9	24.308	5.998	1.522	2.65	1.934
4501	1706036142	23/01/2024	11:49:33	32.666	3.339	3.247	1.865	1.382	20.579	4.735	3.427	1.363	2.13	9.964	2.679	2.532	0.664	0.915	25.899	5.687	1.157	2.913	2.034
4502	1706036142	23/01/2024	11:49:33	31.349	3.389	3.196	1.874	1.343	21.679	4.706	4	1.541	2.122	12.288	2.161	2.553	0.628	0.933	27.588	5.627	1.021	3.15	2.186
4503	1706036142	23/01/2024	11:49:33	35.901	5.794	3.159	1.917	1.331	23.629	5.538	4.389	1.653	2.109	14.797	2.292	2.467	0.596	0.942	29.407	6.433	1.11	3.273	2.354
4504	1706036142	23/01/2024	11:49:33	44.395	10.88	3.025	1.947	1.34	27.296	7.973	4.502	1.678	2.102	17.412	3.365	2.263	0.574	0.929	32.217	8.83	1.419	3.212	2.506
4505	1706036143	23/01/2024	11:49:34	54.767	19.394	3.081	1.95	1.368	33.182	13.31	4.81	1.632	2.097	19.819	5.486	2.055	0.57	0.899	36.745	14.323	2.257	2.971	2.624
4506	1706036143	23/01/2024	11:49:34	65.713	32.771	4.314	2.001	1.414	41.293	23.165	6.338	1.605	2.082	21.986	8.699	2.091	0.613	0.863	43.467	25.064	4.42	2.648	2.707
4507	1706036143	23/01/2024	11:49:34	75.991	51.232	7.735	2.249	1.464	51.257	38.015	9.843	1.734	2.037	24.13	12.725	2.517	0.742	0.833	52.58	41.994	8.559	2.388	2.748
4508	1706036143	23/01/2024	11:49:34	84.542	72.562	13.578	2.848	1.499	61.826	56.187	15.178	2.138	1.956	26.725	16.999	3.296	0.977	0.812	62.88	63.307	14.579	2.349	2.728
4509	1706036143	23/01/2024	11:49:34	89.811	92.252	20.803	3.836	1.512	70.702	73.848	21.183	2.814	1.854	29.726	20.667	4.241	1.298	0.802	71.874	84.349	21.375	2.625	2.639
4510	1706036143	23/01/2024	11:49:34	90.11	104.915	27.234	5.056	1.511	75.603	86.286	25.914	3.613	1.763	32.622	22.862	5.082	1.652	0.805	76.788	99.206	26.982	3.193	2.49
4511	1706036143	23/01/2024	11:49:34	84.641	106.453	30.571	6.178	1.511	74.731	89.679	27.531	4.296	1.716	34.489	22.87	5.575	1.957	0.825	75.589	103.017	29.416	3.922	2.313
4512	1706036143	23/01/2024	11:49:34	74.285	96.157	29.793	6.823	1.53	68.37	82.806	25.43	4.634	1.731	34.995	20.561	5.603	2.124	0.857	68.431	94.209	27.956	4.601	2.134
4513	1706036144	23/01/2024	11:49:35	61.401	77.331	25.532	6.744	1.567	58.317	67.823	20.44	4.509	1.796	33.235	16.578	5.228	2.108	0.891	57.799	75.585	23.372	5.016	1.962
4514	1706036144	23/01/2024	11:49:35	48.842	55.687	19.703	5.948	1.604	47.209	49.189	14.444	3.976	1.871	29.705	11.947	4.633	1.925	0.914	46.612	52.921	17.543	5.039	1.8
4515	1706036144	23/01/2024	11:49:35	38.879	36.842	14.5	4.704	1.631	37.098	31.766	9.411	3.259	1.928	24.483	7.784	4.007	1.646	0.921	37.096	32.354	12.505	4.688	1.665
4516	1706036144	23/01/2024	11:49:35	32.492	24.367	11.328	3.389	1.647	29.511	19.204	6.446	2.638	1.958	18.821	4.842	3.471	1.37	0.914	30.485	18.241	9.516	4.104	1.582
4517	1706036144	23/01/2024	11:49:35	30.869	18.411	10.488	2.335	1.653	26.049	12.559	5.654	2.305	1.964	14.11	3.273	3.055	1.198	0.902	28.664	11.576	8.852	3.535	1.564
4518	1706036144	23/01/2024	11:49:35	35.825	16.784	11.196	1.707	1.65	28.563	10.713	6.235	2.279	1.946	11.515	2.816	2.714	1.18	0.895	33.791	10.681	9.72	3.218	1.601
4519	1706036144	23/01/2024	11:49:35	46.662	16.932	12.217	1.493	1.636	36.541	11.689	7.073	2.445	1.908	10.93	3.054	2.388	1.309	0.901	45.438	12.973	10.838	3.299	1.661
4520	1706036144	23/01/2024	11:49:35	60.595	17.732	12.925	1.546	1.616	47.506	14.141	7.728	2.637	1.857	11.551	3.644	2.084	1.527	0.928	60.354	16.717	11.426	3.755	1.715
4521	1706036145	23/01/2024	11:49:36	74.058	19.407	13.665	1.739	1.616	58.33	17.608	8.538	2.768	1.828	12.212	4.46	1.848	1.759	0.978	74.423	21.282	11.562	4.441	1.754
4522	1706036145	23/01/2024	11:49:36	83.499	21.694	14.623	2.041	1.662	65.583	21.299	9.729	2.868	1.869	12.714	5.325	1.716	1.953	1.045	83.564	25.695	11.394	5.171	1.792
4523	1706036145	23/01/2024	11:49:36	85.98	23.868	15.671	2.464	1.768	66.611	24.286	11.189	3.009	2.014	12.421	5.997	1.752	2.096	1.119	85.049	28.818	10.98	5.777	1.859
4524	1706036145	23/01/2024	11:49:36	80.453	25.067	16.37	2.997	1.908	60.786	25.769	12.509	3.227	2.24	11.369	6.24	1.967	2.191	1.175	78.463	29.774	10.285	6.132	1.967
4525	1706036145	23/01/2024	11:49:36	69.591	24.796	16.257	3.559	2.026	50.381	25.294	13.172	3.477	2.468	9.853	5.937	2.306	2.252	1.187	66.563	28.288	9.315	6.167	2.094
4526	1706036145	23/01/2024	11:49:36	56.435	23.107	15.031	4.022	2.062	38.716	22.911	12.779	3.655	2.602	8.221	5.203	2.69	2.3	1.141	53.155	24.817	8.126	5.89	2.203
4527	1706036145	23/01/2024	11:49:36	44.454	20.503	12.77	4.271	1.981	28.796	19.174	11.297	3.657	2.578	7.184	4.325	3.036	2.333	1.042	41.385	20.303	6.798	5.368	2.261
4528	1706036145	23/01/2024	11:49:36	34.936	17.718	9.939	4.241	1.794	21.876	14.944	9.092	3.433	2.404	6.601	3.587	3.24	2.321	0.914	32.547	15.797	5.441	4.707	2.269

## Segundo movimiento (Alzado):

5043	1706036210	23/01/2024	11:50:41	249.229	40.901	4.835	4.951	3.303	42.49	11.886	6.97	5.911	6.054	25.595	4.545	2.755	2.713	3.421	48.665	11.847	1.982	5.362	6.158
5044	1706036210	23/01/2024	11:50:41	237.291	40.965	4.568	5.001	3.753	44.141	11.741	5.421	4.967	6.707	30.598	5.319	2.971	2.981	3.832	50.372	14.144	1.282	6.245	6.766
5045	1706036210	23/01/2024	11:50:41	202.576	37.682	4.108	4.807	4.083	44.788	12.385	4.884	4.181	7.218	34.365	6.272	3.145	3.114	4.106	50.462	16.443	1	7.136	6.966
5046	1706036210	23/01/2024	11:50:41	150.272	31.607	3.379	4.416	4.226	42.519	13.056	4.972	3.74	7.549	34.089	7.106	3.172	3.089	4.169	46.771	17.784	0.972	7.808	6.679
5047	1706036210	23/01/2024	11:50:41	98.521	24.081	2.567	3.943	4.186	40.189	13.331	5.4	3.716	7.731	30.161	7.566	3.084	2.948	4.048	40.449	17.545	1.104	8.117	5.995
5048	1706036210	23/01/2024	11:50:41	57.714	16.727	1.961	3.486	4.024	41.808	13.564	6.027	4.025	7.832	22.979	7.5	2.985	2.742	3.846	32.336	15.707	1.343	7.998	5.122
5049	1706036211	23/01/2024	11:50:42	32.78	10.69	1.781	3.097	3.81	50.546	14.445	6.723	4.501	7.892	14.919	6.872	2.999	2.512	3.67	24.396	12.719	1.709	7.49	4.285
5050	1706036211	23/01/2024	11:50:42	21.945	6.527	2.049	2.778	3.588	66.166	16.582	7.332	5.022	7.909	8.091	5.846	3.174	2.286	3.577	18.805	9.509	2.229	6.716	3.641
5051	1706036211	23/01/2024	11:50:42	19.91	4.341	2.627	2.501	3.356	84.385	19.98	7.689	5.569	7.843	4.082	4.779	3.457	2.07	3.533	16.743	7.172	2.871	5.809	3.232
5052	1706036211	23/01/2024	11:50:42	21.994	4.151	3.291	2.238	3.087	99.093	23.902	7.675	6.163	7.661	2.911	4.026	3.698	1.863	3.454	18.12	6.433	3.532	4.887	3.008
5053	1706036211	23/01/2024	11:50:42	25.877	5.976	3.898	1.986	2.763	103.98	27.195	7.368	6.809	7.368	3.518	3.857	3.777	1.668	3.265	21.696	7.449	4.157	4.036	2.894
5054	1706036211	23/01/2024	11:50:42	30.559	9.563	4.497	1.761	2.408	98.843	28.969	7.074	7.476	7.019	4.544	4.41	3.723	1.497	2.962	26.056	9.721	4.796	3.292	2.859
5055	1706036211	23/01/2024	11:50:42	37.955	15.467	5.566	1.662	2.098	85.713	29.227	7.28	8.132	6.686	5.495	6	3.796	1.388	2.628	30.177	13.125	5.631	2.695	2.916
5056	1706036211	23/01/2024	11:50:42	51.025	25.276	7.838	1.793	1.922	72.106	28.843	8.267	8.732	6.406	6.222	8.942	4.336	1.365	2.397	33.237	18.176	6.915	2.295	3.079
5057	1706036212	23/01/2024	11:50:43	71.287	41.28	11.736	2.197	1.915	61.85	29.732	10.151	9.24	6.169	7.125	13.533	5.514	1.426	2.377	35.374	26.103	8.797	2.152	3.329
5058	1706036212	23/01/2024	11:50:43	102.212	64.604	17.474	2.88	2.057	60.489	33.706	12.936	9.65	5.923	9.439	19.543	7.394	1.583	2.589	41.449	37.956	11.701	2.461	3.613
5059	1706036212	23/01/2024	11:50:43	149.573	93.329	24.143	3.839	2.317	74.374	41.88	16.377	9.936	5.645	15.164	25.711	9.693	1.875	2.978	60.634	53.295	15.439	3.547	3.871
5060	1706036212	23/01/2024	11:50:43	226.505	128.748	30.905	5.12	2.696	118.121	58.896	20.525	10.156	5.4	32.137	32.919	12.249	2.373	3.455	110.726	76.685	19.889	5.682	4.093
5061	1706036212	23/01/2024	11:50:43	411.353	182.668	37.085	9.05	3.962	280.259	101.279	25.889	12.314	6.125	99.106	45.223	15.357	4.917	4.369	276.236	123.734	24.9	10.792	5.179
5062	1706036212	23/01/2024	11:50:43	830.224	268.086	42.548	21.797	8.325	669.267	187.18	32.64	21.324	10.42	266.414	69.057	21.156	14.698	7.056	674.788	211.636	30.054	23.804	9.588
5063	1706036212	23/01/2024	11:50:43	1601.05	387.587	47.639	49.055	17.98	1424.328	320.54	40.273	41.811	20.889	600.114	108.115	32.387	36.767	13.077	1435.272	343.729	35.134	49.102	19.691
5064	1706036212	23/01/2024	11:50:43	2686.036	523.58	56.133	91.083	33.589	2767.676	562.794	85.935	88.853	39.9	1073.728	160.903	52.794	71.551	23.244	2492.605	499.968	42.812	86.143	36.082
5065	1706036213	23/01/2024	11:50:44	3866.709	653.318	72.447	140.751	54.026	5335.724	1307.68	382.942	210.968	73.616	1598.635	232.587	85.337	113.116	37.454	3598.513	651.59	57.851	128.153	57.213
5066	1706036213	23/01/2024	11:50:44	4916.769	770.201	100.315	185.521	76.198	9798.281	3114.303	1228.544	462.07	128.307	2102.359	337.354	130.616	151.132	54.171	4503.923	785.534	86.119	164.504	79.412
5067	1706036213	23/01/2024	11:50:44	5649.43	880.46	138.874	212.499	95.479	16196.074	6241.112	2759.653	852.561	202.951	2535.199	483.113	183.971	175.166	70.305	5035.316	901.364	129.633	184.865	97.772
5068	1706036213	23/01/2024	11:50:44	5982.256	995.939	184.577	214.665	107.227	23762.539	10323.374	4786.33	1324.739	285.22	2860.713	663.786	238.269	179.461	82.039	5142.31	1006.953	186.8	183.942	107.835
5069	1706036213	23/01/2024	11:50:44	5964.457	1124.596	228.996	194.248	109.012	30728.989	14355.718	6798.807	1761.272	354.015	3083.199	855.941	284.535	164.998	86.396	4952.329	1111.72	248.494	163.854	107.633
5070	1706036213	23/01/2024	11:50:44	5571.727	1249.23	261.636	161.587	101.489	34984.644	17049.288	8149.87	2029.675	387.841	3096.014	1016.254	314.291	138.932	82.555	4474.576	1206.319	300.169	133.238	98.426
5071	1706036213	23/01/2024	11:50:44	4983.069	1335.382	275.189	129.223	87.728	35158.662	17438.882	8371.012	2045.092	375.046	2945.027	1103.127	322.642	111.03	72.133	3945.265	1268.202	328.306	102.657	83.795
5072	1706036213	23/01/2024	11:50:44	4234.383	1345.956	268.523	105.473	71.67	31215.834	15418.585	7422.463	1811.63	319.954	2577.652	1092.456	310.551	89.047	58.343	3336.013	1265.432	327.617	79.415	67.863
5073	1706036214	23/01/2024	11:50:45	3441.53	1247.966	246.662	91.691	56.54	24776.092	11716.389	5670.513	1414.136	241.15	2091.074	981.647	284.018	76.043	44.595	2748.157	1168.447	303.316	65.177	53.6
5074	1706036214	23/01/2024	11:50:45	2671.157	1050.946	217.931	83.81	43.941	17858.364	7568.125	3729.06	979.137	162.999	1567.587	803.734	250.998	70.177	33.388	2183.203	987.837	267.183	57.032	42.142
5075	1706036214	23/01/2024	11:50:45	1959.471	796.01	192.806	76.69	34.083	12510.79	4147.927	2160.295	618.41	104.776	1110.945	606.421	219.718	67.228	25.776	1673.936	763.369	235.144	50.763	33.283
5076	1706036214	23/01/2024	11:50:45	1447.757	555.684	177.164	68.308	26.711	9536.746	2070.929	1249.142	388.338	74.128	837.733	438.584	194.075	63.953	21.536	1348.029	560.048	216.62	44.512	26.623
5077	1706036214	23/01/2024	11:50:45	1091.209	378.443	172.174	59.741	21.601	8663.873	1233.182	914.177	280.8	67.49	706.074	322.556	173.875	59.094	19.713	1159.524	417.806	212.019	38.852	21.992
5078	1706036214	23/01/2024	11:50:45	943.22	278.926	175.312	52.375	18.141	8451.111	1119.471	869.112	254.137	74.322	713.796	256.118	156.978	52.437	18.977	1145.254	343.899	215.14	34.496	18.857
5079	1706036214	23/01/2024	11:50:45	878.817	254.241	180.668	47.057	15.867	8245.728	1246.014	883.777	271.962	85.314	709.268	229.018	141.11	44.81	18.316	1136.676	328.473	216.353	32.075	16.806
5080	1706036214	23/01/2024	11:50:45	949.84	294.483	183.601	44.049	14.916	7560.111	1409.728	886.904	311.499	96.766	703.181	232.967	125.153	37.827	17.597	1174.565	360.157	209.288	32.282	15.97



## Tercer movimiento (Izquierda):

6342	1706036372	23/01/2024	11:53:23	4202.577	778.774	271.279	112.911	30.848	2770.009	517.449	180.031	75.635	21.153	972.93	223.454	93.469	49.949	16.66	4036.494	736.129	254.277	107.74	29.646
6343	1706036372	23/01/2024	11:53:23	1937.725	383.921	127.842	51.928	14.934	1274.021	253.367	85.695	36.113	11.542	447.519	109.239	43.424	23.364	8.341	1859.967	360.863	120.872	50.32	14.718
6344	1706036373	23/01/2024	11:53:24	621.257	134.763	43.961	17.313	5.84	411.347	89.463	31.212	13.759	6.56	145.117	38.213	14.721	8.226	3.592	594.11	125.317	42.962	17.493	6.29
6345	1706036373	23/01/2024	11:53:24	110.279	30.126	10.62	4.617	2.39	89.376	23.023	9.967	5.647	5.807	28.013	10.405	4.585	2.95	1.864	106.456	27.009	12.156	5.212	3.279
6346	1706036373	23/01/2024	11:53:24	38.346	8.476	6.894	4.384	2.082	62.803	11.934	6.568	5.219	7.929	31.518	9.63	9.77	4.913	2.142	35.541	7.06	8.741	4.321	3.303
6347	1706036373	23/01/2024	11:53:24	127.078	13.226	17.757	10.215	3.041	187.835	15.641	9.271	7.647	11.582	119.323	27.495	31.104	13.51	3.819	115.632	10.689	18.586	8.287	4.542
6348	1706036373	23/01/2024	11:53:24	307.456	30.202	39.847	20.985	5.463	398.285	24.281	15.055	12.225	16.804	288.943	71.31	73.384	29.471	7.205	272.988	23.982	38.644	15.902	6.972
6349	1706036373	23/01/2024	11:53:24	607.976	66.682	73.651	37.021	13.58	704.077	44.248	25.093	20.74	28	566.742	146.955	141.077	52.875	14.277	534.189	54.47	70.506	28.281	13.353
6350	1706036373	23/01/2024	11:53:24	1003.9	123.299	116.576	59.266	34.767	1024.779	78.339	39.825	37.943	52.712	946.907	245.469	231.32	84.627	28.734	882.773	105.361	113.216	49.733	28.799
6351	1706036373	23/01/2024	11:53:24	1497.66	193.458	162.354	90.943	75.29	1359.745	122.524	58.557	72.501	96.543	1428.219	349.074	331.043	130.46	54.546	1331.094	172.512	161.437	90.981	58.468
6352	1706036373	23/01/2024	11:53:24	2040.887	274.76	200.66	134.89	137.147	1671.17	174.889	79.497	131.248	158.616	1969.294	446.089	415.344	195.895	94.261	1839.721	256.205	204.787	161.741	104.901
6353	1706036374	23/01/2024	11:53:25	2585.58	369.735	225.689	189.734	216.058	1966.956	237.907	103.384	211.871	229.6	2507.624	532.503	465.929	278.819	146.752	2372.814	360.758	237.952	260.376	165.342
6354	1706036374	23/01/2024	11:53:25	3057.83	482.866	237.405	247.781	299.783	2239.349	316.937	132.153	299.644	293.515	2961.662	613.259	475.422	365.304	204.946	2867.404	490.344	260.997	369.157	230.126
6355	1706036374	23/01/2024	11:53:25	3376.454	608.454	239.19	296.058	370.344	2467.645	411.422	166.804	371.178	333.507	3249.615	692.431	450.334	432.581	256.684	3241.702	638.568	278.133	458.931	284.744
6356	1706036374	23/01/2024	11:53:25	3486.085	727.588	234.478	321.329	410.241	2605.951	508.141	205.103	404.007	338.734	3313.338	762.95	407.162	458.502	288.668	3423.661	780.775	293.574	500.911	315.011
6357	1706036374	23/01/2024	11:53:25	3335.555	810.415	224.228	315.859	409.631	2588.499	581.948	239.89	386.844	309.055	3121.26	804.514	361.559	431.733	291.837	3343.624	879.273	306.355	479.815	312.895
6358	1706036374	23/01/2024	11:53:25	2949.523	827.772	207.555	280.859	370.227	2377.579	605.207	260.705	324.789	254.629	2709.314	791.535	320.534	357.717	265.242	3004.735	897.913	309.604	401.518	279.795
6359	1706036374	23/01/2024	11:53:25	2384.233	765.429	182.366	226.19	304.202	1984.048	562.355	258.988	237.663	191.185	2144.285	709.409	281.924	257.442	216.6	2454.438	821.37	295.126	291.326	225.841
6360	1706036374	23/01/2024	11:53:25	1761.241	633.592	148.546	166.332	228.746	1499.349	459.878	232.509	151.054	133.107	1552.805	566.554	239.705	158.718	159.011	1822.88	664.576	258.999	182.659	165.47
6361	1706036375	23/01/2024	11:53:26	1128.424	464.653	110.75	114.351	159.185	992.064	327.218	188.142	85.485	88.383	977.485	394.973	191.712	84.237	105.606	1178.534	469.914	206.048	101.613	111.428
6362	1706036375	23/01/2024	11:53:26	629.468	299.517	74.521	77.337	104.496	568.717	200.256	137.978	48.783	57.98	533.974	235.963	140.593	42.299	65.267	656.514	286.738	146.768	56.937	71.064
6363	1706036375	23/01/2024	11:53:26	324.789	172.917	47.477	55.752	66.876	321.184	108.308	94.975	36.05	39.205	265.425	122.31	94.516	26.581	41.222	345.983	153.183	93.79	40.762	46.067
6364	1706036375	23/01/2024	11:53:26	182.254	100.713	32.093	45.877	44.664	208.857	62.475	67.207	36.646	29.739	146.224	62.926	62.017	24.669	32.4	212.035	80.502	55.894	38.315	34.607
6365	1706036375	23/01/2024	11:53:26	177.848	80.37	28.442	43.931	33.8	228.984	59.906	57.952	42.327	27.233	172.403	50.709	47.818	26.71	34.983	239.276	59.097	35.497	38.349	33.227
6366	1706036375	23/01/2024	11:53:26	231.833	94.391	32.448	47.596	29.731	298.384	85.574	62.997	49.581	28.958	269.328	67.395	49.573	29.248	43.802	333.632	65.741	27.681	37.468	38.311
6367	1706036375	23/01/2024	11:53:26	306.964	122.369	39.56	54.213	30.006	398.496	120.968	75.173	56.557	32.76	407.273	94.058	62.467	31.387	54.231	460.366	80.057	26.312	35.965	46.9
6368	1706036375	23/01/2024	11:53:26	389.49	155.407	48.934	60.62	33.179	513.584	157.606	90.224	62.004	36.851	565.548	124.372	82.403	33.278	62.382	604.832	97.537	28.672	35.29	56.084
6369	1706036376	23/01/2024	11:53:27	450.363	190.837	57.151	65.126	37.059	605.871	191.624	102.141	65.287	39.746	693.97	155.529	103.101	35.781	65.356	716.987	119.937	33.546	37.069	62.894
6370	1706036376	23/01/2024	11:53:27	476.627	249.099	62.937	71.634	39.981	647.082	239.086	107.967	69.004	41.106	756.343	201.979	120.164	41.745	62.752	768.104	169.275	42.322	44.494	66.058
6371	1706036376	23/01/2024	11:53:27	508.376	373.228	69.811	88.4	42.039	661.647	340.374	110.737	78.56	41.729	766.214	301.511	132.953	54.942	56.771	779.903	290.89	58.091	61.116	66.533
6372	1706036376	23/01/2024	11:53:27	646.876	590.345	80.515	121.451	44.451	744.282	522.923	114.164	98.344	42.761	807.322	480.434	141.764	77.495	50.829	849.641	512.427	81.214	88.187	66.458
6373	1706036376	23/01/2024	11:53:27	952.799	881.471	95.68	168.61	48.205	962.653	774.178	119.79	127.702	44.858	947.658	727.078	146.828	107.265	47.695	1040.692	815.486	108.485	122.349	67.614
6374	1706036376	23/01/2024	11:53:27	1396.949	1178.804	112.421	218.409	53.152	1307.981	1036.874	125.647	159.541	47.701	1192.545	985.811	147.368	137.223	48.093	1347.473	1132.009	133.55	155.488	70.244
6375	1706036376	23/01/2024	11:53:27	1880.955	1388.079	125.398	254.213	57.736	1698.055	1227.209	127.981	183.156	50.103	1480.325	1175.172	142.396	158.212	50.474	1695.015	1365.28	149.254	177.52	72.786
6376	1706036376	23/01/2024	11:53:27	2233.106	1431.481	128.583	261.819	59.638	1982.542	1274.518	122.564	188.606	50.637	1685.219	1225.811	130.61	162.7	52.176	1943.676	1434.404	150.187	180.604	72.784
6377	1706036377	23/01/2024	11:53:28	2327.385	1284.245	118.718	236.46	57.141	2042.876	1153.151	107.336	171.83	48.448	1705.961	1111.005	111.57	148.503	51.222	1985.565	1308.147	135.241	162.992	68.553
6378	1706036377	23/01/2024	11:53:28	2102.713	989.158	97.928	185.704	50.333	1823.332	898.237	84.377	137.154	43.745	1497.975	864.062	87.117	119.719	47.269	1772.064	1024.67	108.822	129.912	60.189
6379	1706036377	23/01/2024	11:53:28	1638.546	640.003	72.529	125.427	41.194	1398.754	590.759	59.124	95.17	37.632	1125.333	564.651	61.483	85.051	41.359	1370.176	675.695	78.474	91.092	49.34

## Cuarto movimiento (Empuje):

7443	1706036510	23/01/2024	11:55:41	851.154	742.728	592.485	224.374	375.225	778.744	714.125	421.802	139.841	303.717	825.494	783.096	661.308	250.51	405.094	850.83	752.842	648.368	152.703	424.883
7444	1706036510	23/01/2024	11:55:41	890.423	757.551	659.163	259.497	429.791	879.962	824.951	409.736	166.726	351.152	957.301	865.636	681.13	298.961	445.293	992.425	842.137	649.496	190.887	467.848
7445	1706036510	23/01/2024	11:55:41	1048.35	734.606	704.244	336.257	530.792	1087.589	895.302	393.31	225.08	448.194	1210.836	899.818	669.191	382.534	533.386	1218.07	886.725	617.521	265.325	554.933
7446	1706036510	23/01/2024	11:55:41	1244.416	661.588	710.029	451.074	651.254	1295.224	881.82	378.533	306.275	571.156	1469.036	852.157	630.619	493.274	643.253	1422.21	853.996	562.027	363.683	662.265
7447	1706036510	23/01/2024	11:55:41	1447.23	557.027	666.909	578.025	749.492	1461.891	776.444	368.15	388.845	680.218	1680.651	721.389	574.83	605.699	734.525	1581.594	740.159	494.555	459.357	751.908
7448	1706036511	23/01/2024	11:55:42	1611.827	461.115	582.405	677.832	789.148	1553.15	617.675	360.407	447.265	737.952	1796.305	547.73	514.063	686.611	772.891	1673.545	579.597	424.823	523.111	790.189
7449	1706036511	23/01/2024	11:55:42	1643.665	400.235	478.921	714.642	754.524	1501.863	453.772	349.788	459.968	724.177	1734.614	377.021	458.03	706.431	743.747	1626.384	414.773	359.141	532.87	761.197
7450	1706036511	23/01/2024	11:55:42	1529.588	378.986	383.74	675.48	652.537	1326.759	326.2	333.611	419.437	639.946	1519.927	249.495	411.665	653.132	652.507	1452.837	285.039	303.613	484.098	668.018
7451	1706036511	23/01/2024	11:55:42	1293.955	379.316	314.912	576.986	509.346	1074.178	247.276	311.279	338.155	508.096	1207.86	176.786	371.146	539.966	521.338	1190.434	208.108	261.163	393.829	531.117
7452	1706036511	23/01/2024	11:55:42	1014.228	376.992	278.639	455.41	360.487	820.169	206.722	285.342	241.921	366.379	893.117	149.151	334.053	399.79	381.661	914.327	180.377	234.135	290.729	382.094
7453	1706036511	23/01/2024	11:55:42	768.763	355.915	269.923	347.85	237.232	635.122	184.803	262.082	158.778	252.247	657.065	148.06	303.381	271.96	262.903	699.487	183.131	223.854	202.98	252.176
7454	1706036511	23/01/2024	11:55:42	611.381	318.613	278.512	274.496	157.064	552.802	168.092	248.235	106.289	187.918	538.383	159.265	283.874	184.565	183.06	589.044	197.922	229.572	146.723	161.427
7455	1706036511	23/01/2024	11:55:42	533.779	281.781	293.147	234.436	121.068	542.327	157.166	246.291	85.38	174.066	506.36	178.356	275.475	143.714	145.482	558.398	215.752	244.722	121.825	114.559
7456	1706036512	23/01/2024	11:55:43	526.181	259.213	304.52	211.006	115.652	574.997	152.058	254.843	83.567	191.614	531.225	197.92	272.998	135.317	138.97	582.703	229.946	259.65	116.606	101.695
7457	1706036512	23/01/2024	11:55:43	541.189	254.411	307.78	185.215	120.481	601.843	148.756	268.807	85.374	212.283	565.217	208.391	267.272	137.989	143.901	615.423	234.85	265.865	118.721	104.686
7458	1706036512	23/01/2024	11:55:43	553.515	262.656	309.267	151.258	121.068	610.528	143.26	285.252	83.121	215.723	594.436	202.735	254.333	138.167	145.023	642.809	230.966	263.665	121.796	109.322
7459	1706036512	23/01/2024	11:55:43	558.847	282.205	318.436	117.223	114.939	606.538	141.558	303.682	80.559	199.81	621.681	185.692	237.1	137.489	139.658	671.853	230.548	260.917	128.513	112.775
7460	1706036512	23/01/2024	11:55:43	564.025	319.734	341.35	97.991	111.645	603.255	162.116	323.289	87.791	180.548	654.062	178.761	224.095	147.434	138.853	712.452	256.113	266.883	146.147	123.255
7461	1706036512	23/01/2024	11:55:43	569.686	381.175	375.224	107.67	135.002	608.496	219.638	338.629	117.616	190.585	688.971	200.774	220.972	182.361	170.135	765.3	317.765	284.723	182.927	161.96
7462	1706036512	23/01/2024	11:55:43	560.753	460.888	407.788	153.748	211.119	611.988	313.859	341.966	178.242	262.852	707.856	254.999	227.47	250.145	264.268	803.406	405.485	307.494	242.391	252.189
7463	1706036512	23/01/2024	11:55:43	518.998	538.641	421.842	233.269	350.237	590.333	426.398	328.253	267.54	408.61	690.622	331.58	240.438	345.368	432.779	798.096	494.18	322.738	319.97	401.52
7464	1706036513	23/01/2024	11:55:44	432.438	592.196	407.127	333.251	541.07	523.32	529.253	300.408	372.196	611.813	614.923	417.307	258.173	450.475	660.6	716.566	561.919	323.284	403.551	597.801
7465	1706036513	23/01/2024	11:55:44	332.821	617.244	372.094	433.226	753.194	428.62	601.572	270.667	470.547	834.415	503.739	504.199	280.122	540.813	908.944	585.075	604.357	310.28	476.913	811.507
7466	1706036513	23/01/2024	11:55:44	244.685	628.081	337.763	509.096	942.722	330.317	640.034	255.723	538.929	1026.955	381.629	592.721	307.655	592.266	1124.728	431.694	637.292	293.079	524.584	1001.217
7467	1706036513	23/01/2024	11:55:44	193.901	646.02	323.346	542.352	1065.666	254.828	652.073	265.768	561.697	1143.863	283.014	680.17	339.46	591.965	1257.089	296.392	679.318	282.504	537.231	1124.673
7468	1706036513	23/01/2024	11:55:44	190	681.297	334.145	526.533	1092.445	216.532	645.196	296.977	535.095	1157.017	223.512	752.014	367.358	541.174	1274.179	207.49	734.917	283.32	513.714	1152.582
7469	1706036513	23/01/2024	11:55:44	250.367	725.845	359.856	469.394	1018.534	222.655	625.002	333.661	470.355	1065.819	214.462	788.777	379.024	456.686	1175.288	187.577	788.985	292.884	462.605	1079.724
7470	1706036513	23/01/2024	11:55:44	385.208	754.604	382.335	394.343	869.302	278.903	591.517	358.507	393.026	899.979	264.355	774.572	370.62	367.678	992.854	244.262	815.992	307.099	402.344	929.404
7471	1706036513	23/01/2024	11:55:44	604.869	747.312	389.105	329.3	690.206	395.583	553.585	364.165	330.416	707.419	385.543	719.006	354.098	300.461	779.064	389.288	806.52	325.713	351.499	744.716
7472	1706036514	23/01/2024	11:55:45	894.783	704.314	380.677	297.681	527.45	572.312	529.003	354.137	301.069	534.616	582.391	650.914	348.208	269.677	585.292	618.851	769.958	353.511	321.771	571.232
7473	1706036514	23/01/2024	11:55:45	1204.294	645.909	364.563	307.95	417.15	777.522	535.869	337.939	306.239	417.89	819.403	605.758	364.862	273.23	451.644	889.03	731.209	392.183	313.738	446.039
7474	1706036514	23/01/2024	11:55:45	1461.437	593.213	345.756	350.075	381.537	964.694	576.085	322.783	331.769	380.151	1046.76	600.422	398.545	296.625	402.561	1141.79	707.417	434.183	318.04	393.351
7475	1706036514	23/01/2024	11:55:45	1576.007	556.098	322.384	401.797	423.583	1064.995	628.136	308.706	356.81	425.469	1184.213	620.944	430.544	322.274	441.815	1293.15	691.32	468.037	323.491	419.136
7476	1706036514	23/01/2024	11:55:45	1514.404	528.595	292.392	438.009	522.454	1042.495	655.29	291.639	361.72	533.364	1182.049	630.575	438.468	333.992	547.612	1289.183	659.388	479.329	319.326	505.272
7477	1706036514	23/01/2024	11:55:45	1313.386	498.906	258.13	443.212	633.304	909.256	626.87	269.749	336.156	658.3	1042.582	593.715	410.683	321.88	671.919	1132.715	589.345	458.925	298.855	609.23
7478	1706036514	23/01/2024	11:55:45	1049.774	459.443	226.506	419.312	705.702	706.55	537.601	247.28	286.803	747.462	804.087	501.42	353.507	288.299	758.799	870.038	481.114	407.429	263.831	681.533
7479	1706036514	23/01/2024	11:55:45	824.404	410.131	206.525	382.072	708.321	515.182	413.964	232.699	232.473	766.181	560.009	379.29	286.791	244.371	771.729	607.672	361.361	334.937	222.142	690.317
7480	1706036515	23/01/2024	11:55:46	703.201	355.627	201.478	349.166	636.945	400.997	296.185	233.446	192.607	706.866	385.272	261.172								