

## Exploitable Results by Third Parties

### 15032 eWatch – Extensive Personal Monitoring and Watch Platform

#### Project details

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Name: PPG2BP IP		
Input(s):	Main feature(s)	Output(s):
<ul style="list-style-type: none"> <li>Third party PPG sensor data annotated with blood pressure</li> </ul>	<ul style="list-style-type: none"> <li>Deep learning framework to learn relation between PPG and BP</li> <li>Server side calculations</li> </ul>	<ul style="list-style-type: none"> <li>Model to estimate blood pressure from PPG sensor.</li> </ul>
Unique Selling Proposition(s):	<ul style="list-style-type: none"> <li>SotA performance in BP estimation and hypertension detection.</li> </ul>	
Integration constraint(s):	<ul style="list-style-type: none"> <li>Model should be served in the cloud.</li> <li>Annotated data should be provided by the customer</li> </ul>	
Intended user(s):	<ul style="list-style-type: none"> <li>Smartwatch/healthwatch/medtech developers</li> </ul>	
Provider:	<ul style="list-style-type: none"> <li>Verhaert</li> </ul>	
Contact point:	<ul style="list-style-type: none"> <li>Frederik Wouters – Frederik.wouters@verhaert.com</li> </ul>	
Condition(s) for reuse:	<ul style="list-style-type: none"> <li>License to be negotiated.</li> </ul>	
<i>Latest update: 08.04.2020</i>		

Clinical trial investigation support for vital signs based technology		
Input(s):	Main feature(s)	Output(s):
<ul style="list-style-type: none"> <li>Technical research question involving vital signs of patients.</li> </ul>	<ul style="list-style-type: none"> <li>Support in setting up the clinical trial at a hospital.</li> <li>Supporting hardware for vital signs detection can be provided or designed for use in the study.</li> </ul>	<ul style="list-style-type: none"> <li>Clinical investigation</li> <li>Outcomes on the technical research question.</li> </ul>
Unique Selling Proposition(s):	<ul style="list-style-type: none"> <li>Assistance in designing the new technical/ product solution based on vital signs.</li> <li>Combining Verhaert's knowledge in technology development with the practical knowledge of setting up a clinical trial to verify and validate the designed technical solution.</li> </ul>	
Integration constraint(s):	<ul style="list-style-type: none"> <li>Main focus is on medical devices.</li> </ul>	
Intended user(s):	<ul style="list-style-type: none"> <li>Start-ups, scale-ups, company branches involved in new product design.</li> </ul>	
Provider:	<ul style="list-style-type: none"> <li>Verhaert</li> </ul>	
Contact point:	<ul style="list-style-type: none"> <li>Frederik Wouters – Frederik.wouters@verhaert.com</li> </ul>	
Condition(s) for reuse:	<ul style="list-style-type: none"> <li>To be negotiated.</li> </ul>	
	<i>Latest update: 08.04.2020</i>	

Name: Hybrid Indoor Localization Algorithm		
Input(s):	Main feature(s)	Output(s):
<ul style="list-style-type: none"> <li>RSSI readings</li> </ul>	<ul style="list-style-type: none"> <li>Applicable for BLE and Wifi</li> <li>Filtered output for more precision</li> <li>Uses both RSSI and fingerprinting methods</li> <li>Easy to calibrate</li> </ul>	<ul style="list-style-type: none"> <li>Location of users</li> <li>Individual mobility metrics</li> <li>Unauthorized trespassing alerts</li> </ul>
Unique Selling Proposition(s):	<ul style="list-style-type: none"> <li>Hybrid algorithm for better precision</li> <li>Applicable for BLE and Wifi devices</li> <li>No separate hardware for the users. They can just use smartphones.</li> </ul>	
Integration constraint(s):	<ul style="list-style-type: none"> <li>Anchor nodes has to be installed for the BLE case, for the Wi-fi's application existing Wifi routers can be used.</li> <li>Floor plans must be prepared.</li> </ul>	
Intended user(s):	<ul style="list-style-type: none"> <li>Hospitals</li> <li>Large infrastructures</li> <li>Smart City applications</li> </ul>	
Provider:	<ul style="list-style-type: none"> <li>Havelsan</li> </ul>	
Contact point:	<ul style="list-style-type: none"> <li>Dr. Tolga Sonmez, tsonmez@havelsan.com.tr</li> </ul>	
Condition(s) for reuse:	<ul style="list-style-type: none"> <li>Licensed software library</li> </ul>	
<i>Latest update: 08.04.2020</i>		

Name: Security Framework		
Input(s):	Main feature(s)	Output(s):
<ul style="list-style-type: none"> <li>▪ Cleartext data</li> </ul>	<ul style="list-style-type: none"> <li>▪ API for bulk encryption/decryption</li> <li>▪ Message digests</li> <li>▪ Digital signature creation, validation, key generation and exchange</li> </ul>	<ul style="list-style-type: none"> <li>▪ Encrypted data</li> </ul>
Unique Selling Proposition(s):	<ul style="list-style-type: none"> <li>▪ Compatible with mobile application frameworks and IoT gateway</li> <li>▪ Faster encryption/decryption process than existing libraries</li> <li>▪ Small file size</li> </ul>	
Integration constraint(s):	<ul style="list-style-type: none"> <li>▪ Open SSL library required</li> <li>▪ 4mb memory/disk space</li> <li>▪ ARM CPU architecture</li> </ul>	
Intended user(s):	<ul style="list-style-type: none"> <li>▪ Embedded IoT Developers</li> </ul>	
Provider:	<ul style="list-style-type: none"> <li>▪ NETAS</li> </ul>	
Contact point:	<ul style="list-style-type: none"> <li>▪ Omer Faruk Acar, <a href="mailto:ofacar@netas.com.tr">ofacar@netas.com.tr</a></li> </ul>	
Condition(s) for reuse:	<ul style="list-style-type: none"> <li>▪ Licensed software library</li> </ul>	
		<i>Latest update: 12.04.2020</i>

Name: Opensource IoT-Ignite MQTT Client for C#		
Input(s):	Main feature(s)	Output(s):
<ul style="list-style-type: none"> <li>Sensor Data from peripherals</li> </ul>	<ul style="list-style-type: none"> <li>Session Management</li> <li>Continuous sensor data transfer to IoT Services</li> </ul>	<ul style="list-style-type: none"> <li>Fast and easy to develop MQTT client for medical and generic type devices</li> </ul>
Unique Selling Proposition(s):	<ul style="list-style-type: none"> <li>MQTT client for C# programming language gives developer to use IoT-Ignite platform in wider areas and environments.</li> <li>Applicable to both Windows and Linux environments.</li> <li>.NET developers can easily develop an IoT-Ignite client with their own needs.</li> </ul>	
Integration constraint(s):	<ul style="list-style-type: none"> <li>.NET framework required to run the client</li> </ul>	
Intended user(s):	<ul style="list-style-type: none"> <li>IoT Developers</li> <li>Peripheral Developers</li> </ul>	
Provider:	<ul style="list-style-type: none"> <li>Noldus and ARDIC</li> </ul>	
Contact point:	<ul style="list-style-type: none"> <li>Baris Inanc, <a href="mailto:baris.inanc@ardictech.com">baris.inanc@ardictech.com</a></li> </ul>	
Condition(s) for reuse:	<ul style="list-style-type: none"> <li>Free to use and reuse</li> </ul>	
<i>Latest update: 12.04.2020</i>		

Name: Patient Monitoring Dashboard and IoT Platform		
Input(s):	Main feature(s)	Output(s):
<ul style="list-style-type: none"> <li>▪ Sensor Data</li> <li>▪ Patient Reports</li> <li>▪ Wound Images</li> <li>▪ Analysis Results</li> </ul>	<ul style="list-style-type: none"> <li>▪ Visualize patient data in a collaborative environment with graphs, data tables and widgets</li> <li>▪ Collect and Provide patient's reports in a single platform to be seen by patient's physicians and relatives</li> </ul>	<ul style="list-style-type: none"> <li>▪ Graphical representation of Sensor Data</li> <li>▪ Report and patient info storage</li> </ul>
Unique Selling Proposition(s):	<ul style="list-style-type: none"> <li>▪ Collaborative, easy to integrate IoT platform and dashboard for Health Vertical.</li> </ul>	
Integration constraint(s):	<ul style="list-style-type: none"> <li>▪ Any device with MQTT support can be integrated with IoT-Ignite platform.</li> </ul>	
Intended user(s):	<ul style="list-style-type: none"> <li>▪ Medical Device Manufacturers,</li> <li>▪ Hospitals,</li> <li>▪ Health Professionals,</li> <li>▪ Patient Relatives</li> </ul>	
Provider:	<ul style="list-style-type: none"> <li>▪ ARDIC</li> </ul>	
Contact point:	<ul style="list-style-type: none"> <li>▪ Baris Inanc, <a href="mailto:baris.inanc@ardictech.com">baris.inanc@ardictech.com</a></li> </ul>	
Condition(s) for reuse:	<ul style="list-style-type: none"> <li>▪ License to be negotiated.</li> </ul>	
<i>Latest update: 12.04.2020</i>		

Name: Activity Tracking System		
Input(s):	Main feature(s)	Output(s):
<ul style="list-style-type: none"> <li>Acceleration of users' movements</li> </ul>	<ul style="list-style-type: none"> <li>Classification of users' movements such as walking, running or immobility.</li> <li>Step count.</li> <li>The eWatch device can listen and analyze activity messages and can make localization calculations simultaneously.</li> </ul>	<ul style="list-style-type: none"> <li>Classification of the user's movements.</li> <li>Number of steps.</li> </ul>
Unique Selling Proposition(s):	<ul style="list-style-type: none"> <li>Real-time activity classification.</li> <li>Advertisement messages appropriate for indoor localization systems.</li> </ul>	
Integration constraint(s):	<ul style="list-style-type: none"> <li>The system available for Bluetooth 4.0 and above.</li> </ul>	
Intended user(s):	<ul style="list-style-type: none"> <li>Personal tracking system developers.</li> <li>Engineers who had developed pedometers.</li> </ul>	
Provider:	<ul style="list-style-type: none"> <li>Medron Technology</li> </ul>	
Contact point:	<ul style="list-style-type: none"> <li>Eren Mert, <a href="mailto:erenmert@medronteknoloji.com">erenmert@medronteknoloji.com</a></li> </ul>	
Condition(s) for reuse:	<ul style="list-style-type: none"> <li>To be negotiated.</li> </ul>	
<i>Latest update: 10.04.2020</i>		



Name: Medron Device Gateway		
Input(s):	Main feature(s)	Output(s):
<ul style="list-style-type: none"> <li>BLE Advertisement</li> </ul>	<ul style="list-style-type: none"> <li>Using Bluetooth and Wifi at the same time.</li> <li>Able to measure RSSI of any BLE devices for localizations.</li> <li>Able to use Ethernet or Wifi for connection with cloud systems.</li> </ul>	<ul style="list-style-type: none"> <li>RSSI values</li> <li>Information of BLE Advertisement</li> </ul>
Unique Selling Proposition(s):	<ul style="list-style-type: none"> <li>Installation and setup of the device is quite simple and fast.</li> <li>Support Bluetooth, Wifi and Ethernet at the same time.</li> </ul>	
Integration constraint(s):	<ul style="list-style-type: none"> <li>The gateway appropriate for Bluetooth 4.0 and above.</li> <li>If the user wants to communicate with the device, Wifi or ethernet connection must be brought to the region where the device is installed.</li> </ul>	
Intended user(s):	<ul style="list-style-type: none"> <li>Personal tracking system developers.</li> <li>Smart Home systems developers.</li> </ul>	
Provider:	<ul style="list-style-type: none"> <li>Medron Technology</li> </ul>	
Contact point:	<ul style="list-style-type: none"> <li>Eren Mert, <a href="mailto:erenmert@medronteknoloji.com">erenmert@medronteknoloji.com</a></li> </ul>	
Condition(s) for reuse:	<ul style="list-style-type: none"> <li>To be negotiated.</li> </ul>	
	<i>Latest update: 10.04.2020</i>	