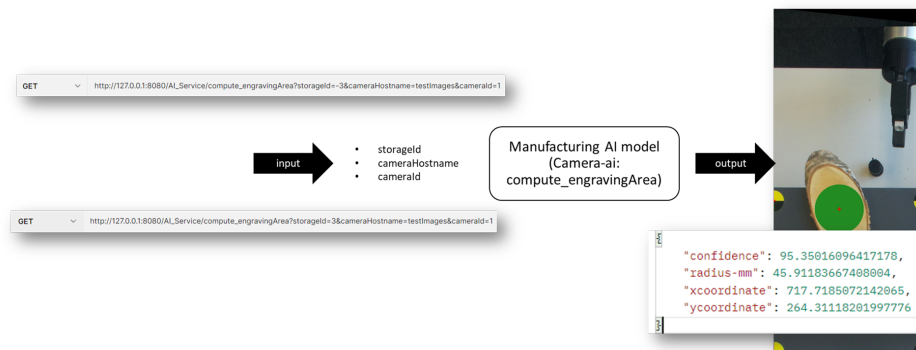


## IntelloT component available for OC #2 integration - Details

<b>Name</b>	Manufacturing AI models – Area Detection AI
<b>Responsible partner(s)</b>	University of Oulu (UOULU)
<b>Brief description</b>	An xApp that runs on the edge to provide AI-driven automated information collection on the workpieces placed on “Workpiece Storages”. Upon a request consisting of camera host and storage ID, this component obtains the bird’s view of the workpiece storage. By identifying a set of markers placed on the workpiece storage, this component corrects the camera distortions, isolates the storage of the interest, detect the workpiece and compute the centre coordinates, radius, and area of the largest circle that can be extracted out of it. These information along a measure of confidence is returned. Alternately, a visualization consists of the workpiece and the highlighted area of the largest circle on it is returned.



<b>Interfacing (I/O)</b>	API interaction with HIL service is available to provide area information of workpieces placed on “Workpiece Storages”. The area information includes the area of the largest circle that can be extracted out from the workpiece, its centre coordinates and radius for a given storage ID.
<b>Main interactions</b>	Receives requests from the HIL service specifying the workpiece storage ID. Returns the area information and a measure of confidence.
<b>Deployment</b>	Can be deployed as an edge service.
<b>Licensing</b>	Proprietary
<b>Deliverable references</b>	Please refer to deliverable D5.1 – “ <b>Integrated IntelloT framework &amp; use case implementations (first version)</b> ”, section 2.3.1 “HIL SERVICE” for more details regarding interfacing with the HIL service & deliverable D3.2 – “ <b>Distributed AI algorithms &amp; methods (first version)</b> ”, section 2.4 “AI for Manufacturing”, for more details on the design and development of the component.

