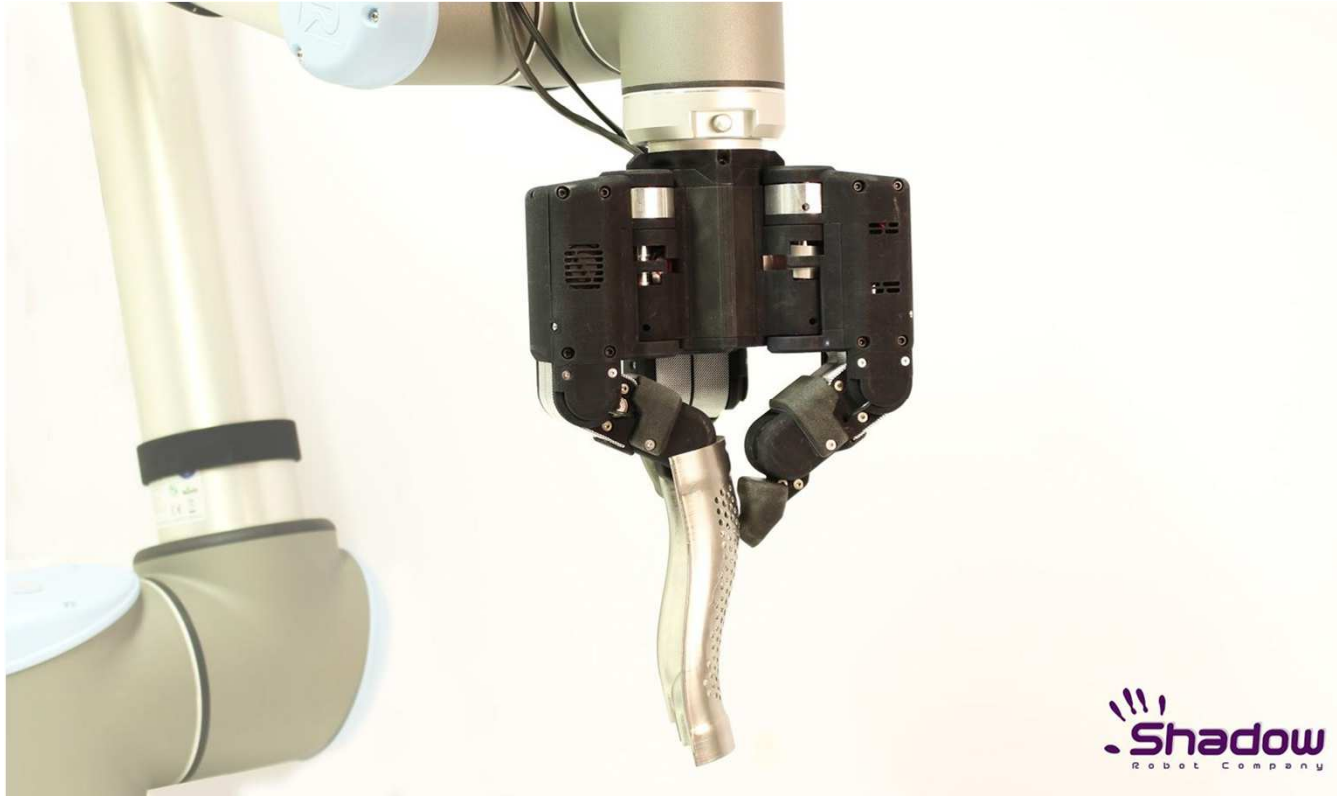




SGS Challenges

— Andriy Petlovanyy —
Shadow Robot

Smart Grasping System



Agile Grasper



Perception

Joint torque sensors

In-hand camera

Tactile finger tips

Skin

Vision



Challenges in vision

Object pose estimation for grasping

Depth cameras

not working so well for object matching without 2d data.

3D CAD model of object based pose estimation

no off the shelf solution exists

Object segmentation under some occlusion

Persistent identification of objects when they are recognized



Open Source Packages

Arm path planning and collision avoidance issues:

- Planning speed
- Unnatural or unexpected plans

Human trackers exist: Are they reliable?
