

### **Description of Additional Supplementary Files**

**Supplementary Movie 1:** Kirigami gripper integrated with a commercially available robotic arm manipulating various objects.

**Supplementary Movie 2:** Biodegradable kirigami gripper made of a leaf grasping different objects.

**Supplementary Movie 3:** Kirigami gripper integrated with an electromyographic prosthesis performing delicate tasks.

**Supplementary Movie 4:** Kirigami gripper grasping various objects actuated manually.