

Meet Kilobot, one of the tiny robots used in SCIol's recently opened Swarm Robotics Lab, where researchers study collective decision making.



JANUARY



With the motion capture system, SCIoI studies human and robot movements. The sensors on the suit detect motion through sixteen cameras.



FEBRUARY



In the electrical and mechanical workshops, researchers build synthetic artifacts to conduct their experiments.



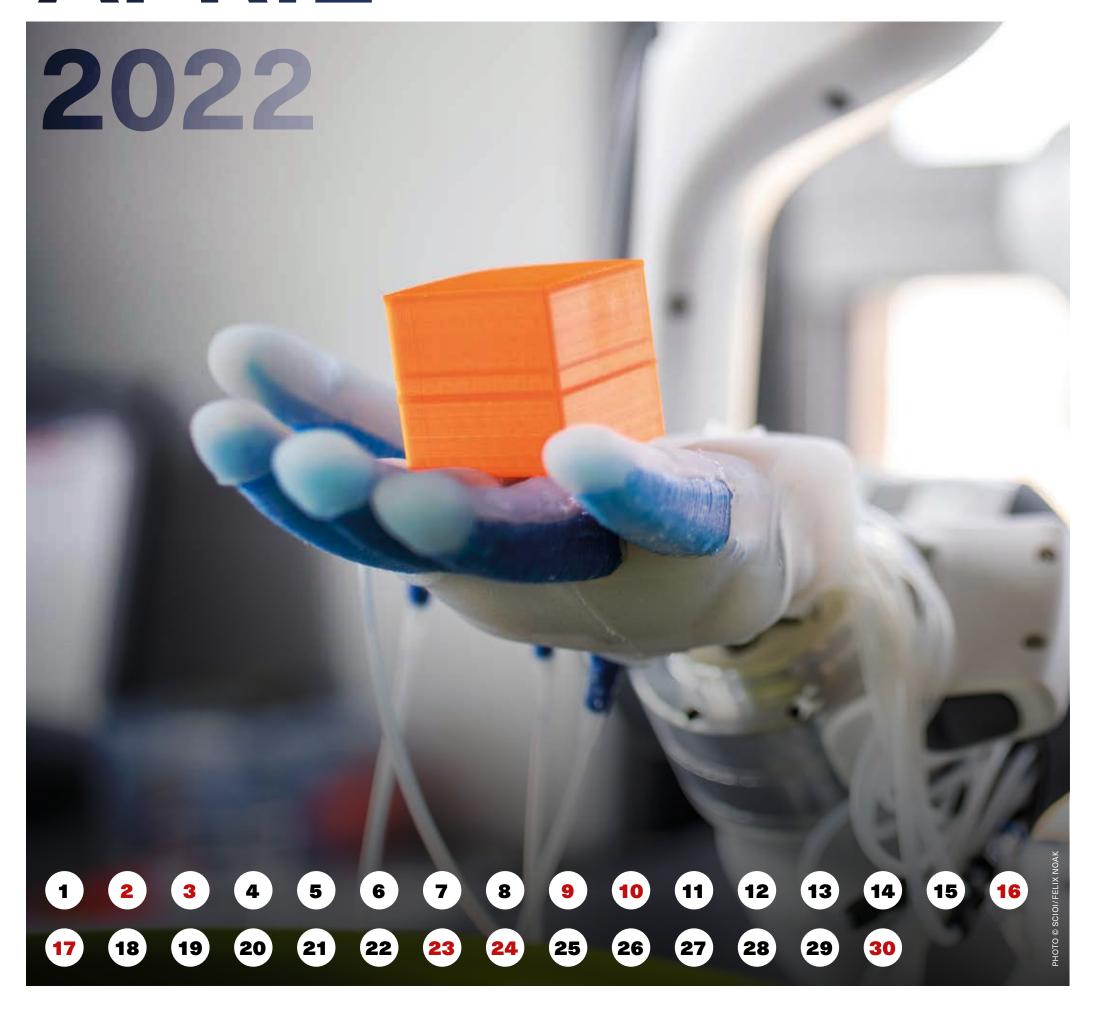
MARCH



In the Robotics Labs we study, build, and control artificial agents. This soft robotic hand helps us investigate the fine movements and sensory capabilities of the human hand.



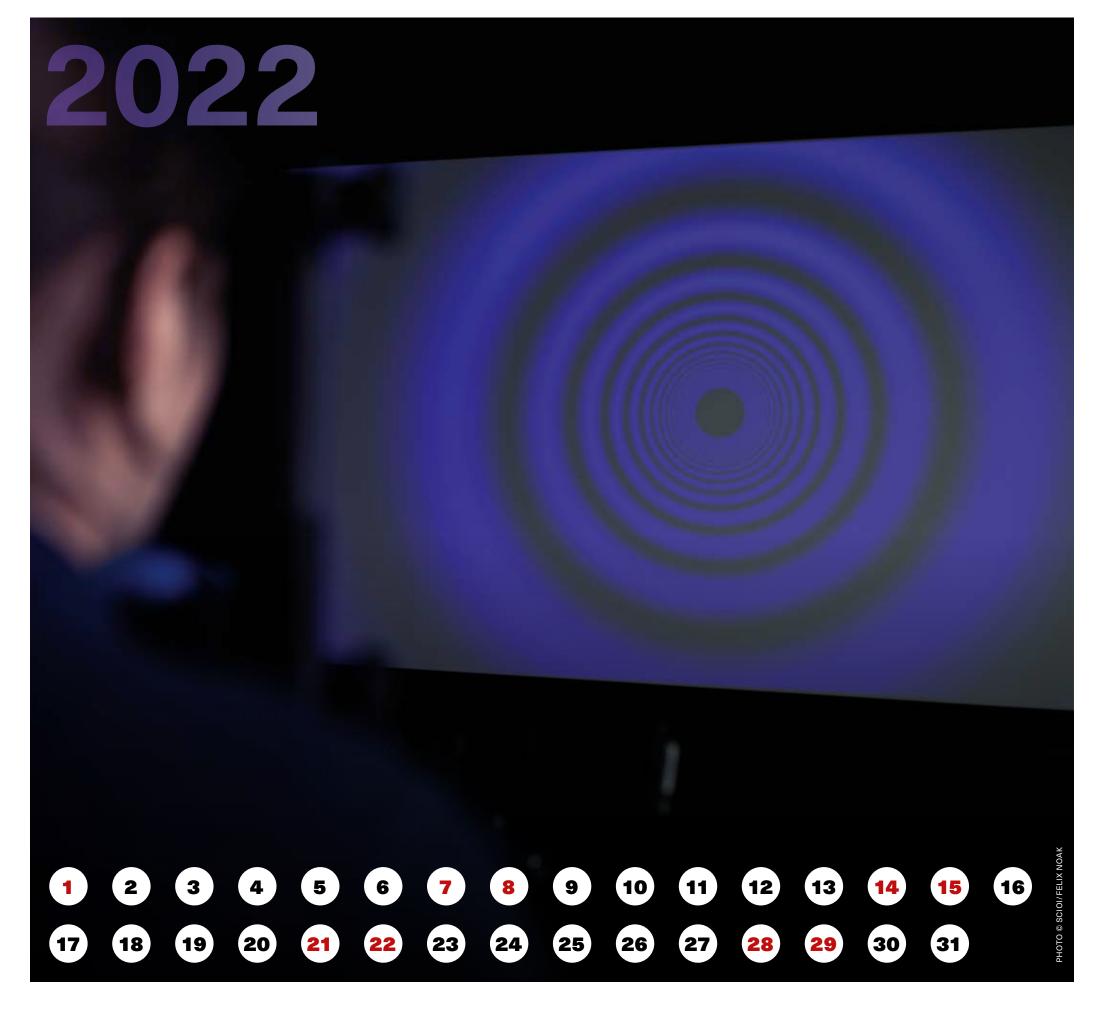
APRIL



The Dark Lab, part of the Visual Capture Lab, allows SCIol researchers to perform state-of-the-art, video-based eye tracking while presenting high-speed visual stimulation at up to 1440 frames per second.



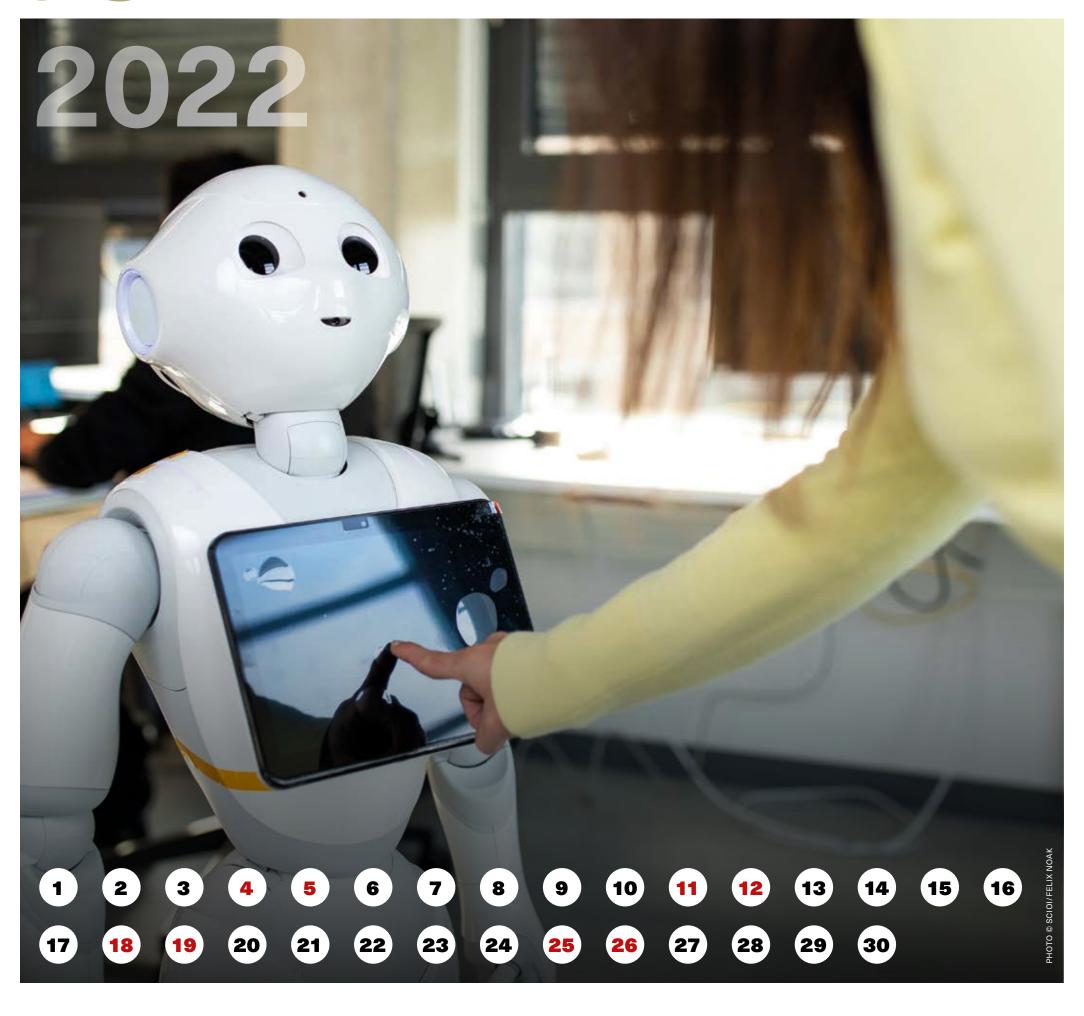
MAY



Our team of humanoid robots helps us investigate Human-Robot Interactions.



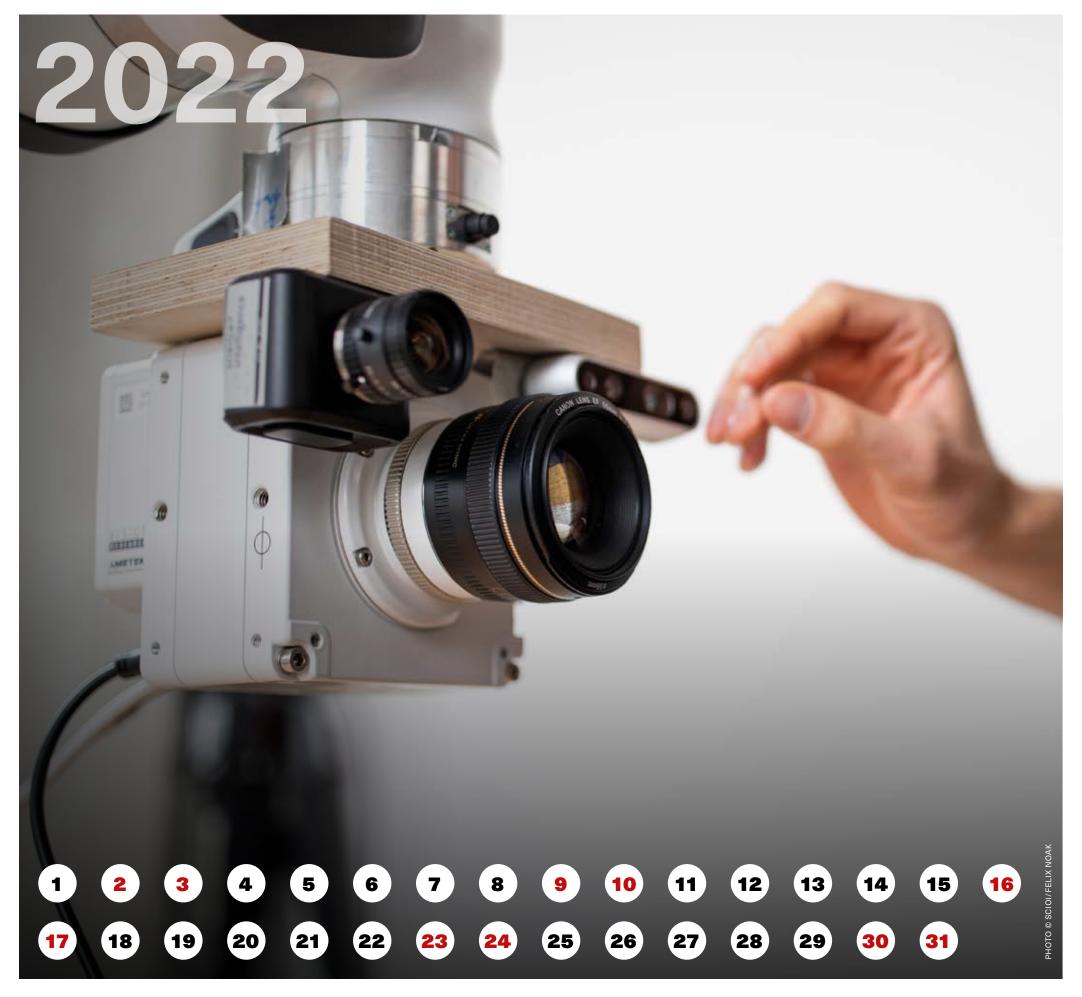
JUNE



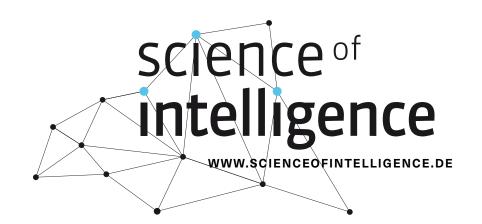
In the Light Lab, which is part of the Visual Capture Lab, researchers prepare experimental materials for the Dark Lab. To do so, scientists set up a scene with static and moving objects, and then record it with controlled camera movement.



JULY



The exhibition "Nach der Natur" ("After Nature") presents research from all of Berlin's Excellence Clusters, including ours, in the attractive setting of the Humboldt Forum (www.humboldtforum.org). In our featured "RoboFish" experiment, we show our robotic fish interacting with others. The demonstration features animated fish to avoid bringing live animals into the museum.



AUGUST



In our Media Room we record scientific podcast episodes, interview scientists, and record talks, lectures, and videos.



SEPTEMBER



In SCIol's EEG Lab, we can measure electrical activity in the brain by using a passive EEG system in an electromagnetically shielded chamber. This can even be done simultaneously with two human participants, who can both receive separate visual and auditory stimulation.



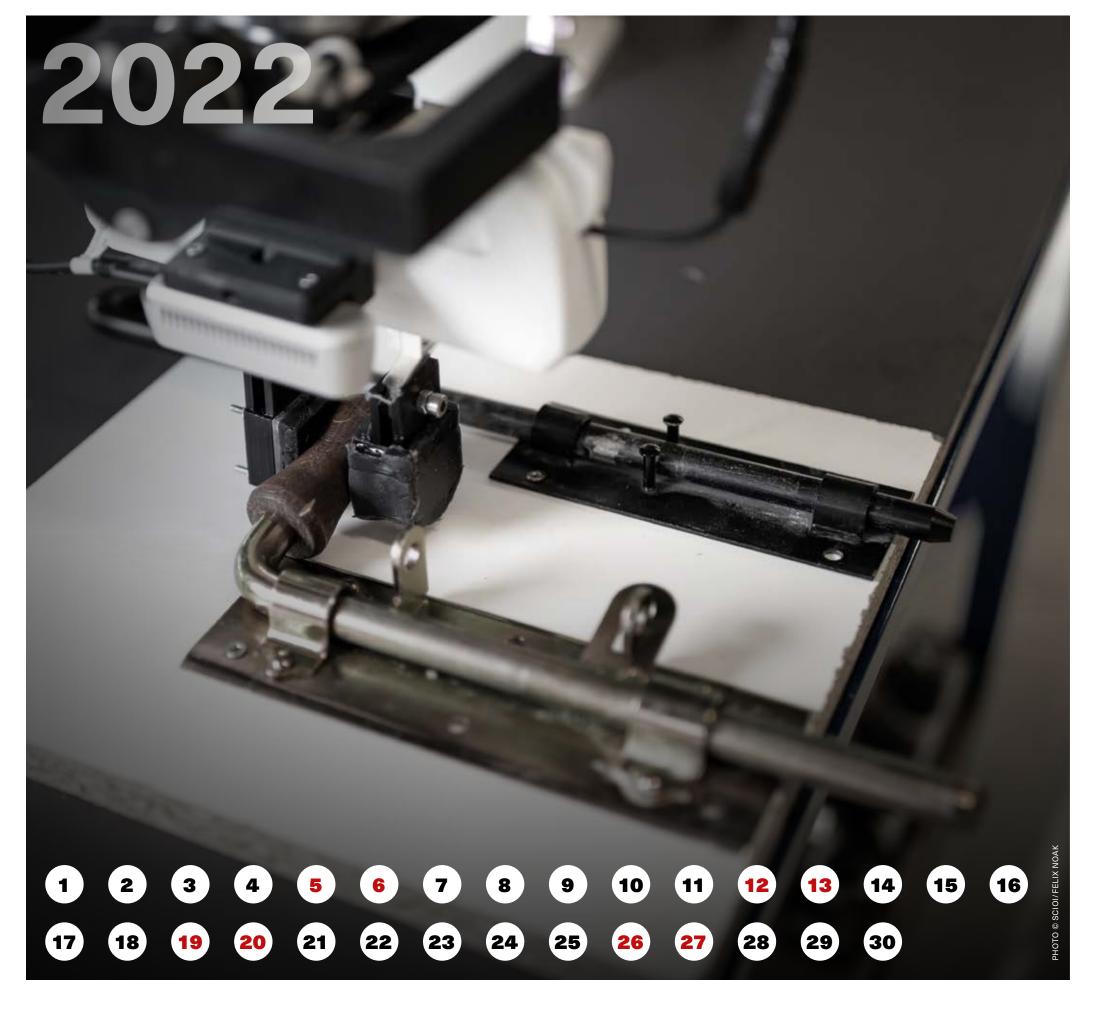
OCTOBER 2022



At SClol, we are developing a system for teaching robots to manipulate and open complex lock-like mechanisms. The ultimate goal is to get out of an escape room.



NOVEMBER



The central element of the exhibition "Nach der Natur" ("After Nature") inside the Humboldt Forum (www.humboldtforum.org) is this interactive curtain showing the collective behavior of fish, designed in collaboration with our researchers. The projected school of fish reacts to the visitors touching the curtain in an impressive rendition of fish behavior.



DECEMBER

