

An Open-Source, Fully Customizable 5-Choice Serial Reaction Time Task Toolbox for Automated Behavioral Training of Rodents

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jove.com/video/63385

Materials

Name	Company	Catalog Number	Comments
1200 Ohm Resistor			Already available in the lab
8-bit 10 kΩ digital potentiometer	Microchip	MCP42010-I/P	From Conrad.de: 1083205
ARD MEGA2560 KIT Arduino - Mega 2560 R3 Lernset	JOY-IT	ARD-Set01	From Reichelt.de: ARD MEGA2560 KIT
ARD SHD MOTOR Arduino Shield - Motor	Adafruit	1438	From Reichelt.de: ARD SHD MOTOR
ARDUINO STACKABLE HEADER KIT - R3	Sparkfun Electronics	PRT-11417	From Antratek.de: PRT-11417
Chow	Altromin	1324 N	Altromin chow products
Euro-Gehäuse	Hammond Electronics	1591EBK	From Conrad.de: 520691
Food pellets	Bio-Serv	F0021	From Bio-serv.com: Dustless Precision Pellets Rodent
Fritzing	Interaction Design Lab Potsdam		Fritzing Software download
Integrated Development Environment	Arduino		Arduino IDE download (Freely available)
IR Break Beam Sensor - 3mm LEDs	Adafruit	2167	From Mouser.de: 485-2167
Laptop or Computer			
LED white round 5mm 2000mcd 20mA	TruComponents	1573731	From Conrad.de: 1573731
Microswitch	Hartmann	MBB1 01 A 01 C 09 A	From Conrad.com: 707243
NeoPixel Stick - 8 WS2812 5050 RGB LEDs	Adafruit	1426	From Reichelt.de: DEBO LED NP8 2
Passive buzzer Speaker	Conrad Components	93038c213a	From Conrad.de: 1511468
Pellet release disk			Already available in the lab. Similar products depicted below. Keep in mind that some of these products make use of different (and stronger) motors and infrared sensors. The use of the microswitch (row 7) and the Arduino Motor Shield (row 3)

			need to be adapted to fit these new specifications. We recommend 3d printing the disk to work with the provided materials and software. Carbatec universal base plate Open Science Framework Open Feeder Open Ephys 3d Model Food Pellet Dispenser Campden Instruments 45mg pellet dispenser
Programming platform	Mathworks	R2019b or younger	
Psychtoolbox Software		V3	Psychtoolbox-3 download
Spur GEAR-MOTOR with DC brush motor	Micromotors	B138F.12.208	Micromotos Series B138F Technical data