

01. SOFT ROBOTICS FINGERS

_3D printed moulds

_casting silicone (Eco-Flex 00-50):

<https://www.amazon.com/Smooth-Ecoflex-00-50-Platinum-Silicone/dp/B00GJ80HIC>

_syringe + needle

02. CONNECTION TO ROBOTIC ARM

_3D printed connection plate

bolts

_screws & nuts

03. HARDWARE

Connection to the robot (to ABB 140 in this case):

_control board (arduino uno or similar):

https://www.amazon.com/RoboGets-Compatible-ATmega328P-Microcontroller-Electronics/dp/B01N4LP86I/ref=sr_1_1_sspa?keywords=arduino+uno&qid=1574006123&sr=8-1-spons&psc=1&spLa=ZW5jcnlwdGVkUXVhbGlmaWVyPUEExSk8xSkhCREtHSjhTJmVuY3J5cHRlZElkPUEwNjExMDQ3MjRBSjBGQlBKREtGRClbmNyeXB0ZWRBZEIkPUEwMDQ2NzE1M0xUTDZCNE1TWjNQQSZ3aWRnZXROYW1IPXNwX2F0ZiZhY3Rpb249Y2xpY2tSZWRpcmVjdCZkb05vdExvZ0NsaWNRPXRydWU=

`_octocoupler:`

https://www.amazon.com/Converter-Optocoupler-Isolator-Maluokasa-DST-1R4P-N/dp/B07NNP4H7S/ref=sr_1_9?keywords=octocoupler&gid=1574006147&sr=8-9

```
_relay:
```

https://www.amazon.com/Nilight-Automotive-Harness-Interlocking-Socket/dp/B0748F1JK4/ref=sr_1_5?keywords=relay&qid=1574006170&sr=8-5

Control air pressure:

2 way solenoid valve:

https://www.amazon.com/4inch-Normally-Closed-Electric-Solenoid/dp/B00ON8XFSO/ref=sr_1_4?crd=1lM2E8L8Y752E&keywords=2+way+solenoid+valve+12v&qid=1574006201&sprefix=2+way+solenoid+val%2Caps%2C370&sr=8-4

_air compressor:

https://www.amazon.com/AstroAI-Portable-Compressor-Inflator-Protection/dp/B078LYX5YF/ref=sr_1_1_sspa?keywords=small+air+compressor&qid=1574006288&sr=8-1-spons&psc=1&spLa=ZW5jcmlwdGVkUXVhbGlmaWVyPUExSzEyMkpPVIJWVTROJmVuY3J5cHRlZElkPUEwMzkyMDQ4MTY2NzFMNDI5RjQ0NiZlbnNyeXB0ZWRBZEIkPUEwODUwMjYzM1BCM1k2WDc3MkFDUCZ3aWRnZXROYW1IPXNwX2F0ZiZhY3Rpb249Y2xpY2tSZWRpcmVjdCZkb05vdExvZ0NsaWNRPXRydWU=

force touch sensor:

https://www.amazon.com/Sensitive-Resistor-Pressure-Diameter-Resistance-Type/dp/B07MP4RL9Q/ref=sr_1_2?keywords=force+sensor&qid=1574006265&sr=8-2

General:

_jumper cables & jumper extension wires:

https://www.amazon.com/Elegoo-EL-CP-004-Multicolored-Breadboard-arduino/dp/B01EV70C78/ref=sr_1_1_sspa?keywords=jumper+cables+arduino&qid=1574006326&sr=8-1-spons&psc=1&spLa=ZW5jcnlwdGVkUXVhbGlmaWVyPUExWVI2N0VDV113T0lCJmVuY3J5cHRlZEIkPUeWMDAzNDcwMkpWMkQ1UEI4TU0zOSZlbnNyeXB0ZWRBZEIkPUeWNTMxODQ3M0xOOFVDVIUxSDQ4RCZ3aWRnZXROYW11PjNwX2F0ZiZhY3Rpb249Y2xpY2tSZWRpcmVjdCZkb05vdExvZ0NsaWNrPXRydWU=

breadboard:

https://www.amazon.es/Protoboard-contactos-Breadboard-prototipos-soldadura/dp/B00JGFDKBQ/ref=asc_df_B00JGFDKBQ/?tag=googshopes-21&linkCode=df0&hvadid=59605910955&hvpone=&hvptwo=&hvqmt=&hvdev=c&hvcmdl=&hvlocint=&hvlocphy=1005424&hvtargid=pla-147804343755&psc=1

12V power supply:

https://www.amazon.com/Switching-Universal-Regulated-Transformer-Computer/dp/B07C2WB_R1L/ref=sr_1_2_sspa?keywords=12v+power+supply&qid=1574006439&sr=8-2-spons&psc=1&pl_a=ZW5jcnlwdGVkUXVhbGlmaWVyPUFHTENJMFA4SDNUN0gmZW5jcnlwdGVkSWQ9QTA5NzA5MjgxrIlLWEoxTks5M05SjMvUyY3J5cHRlZEFkSWQ9QTA4NjU2OThtXTTNWQlFMSUpTRjUmd2lkZ2V0TmFtZT1zcF9hdGYmYWN0aW9uPWNSaWNrUmVkaXJlY3QmZG9Ob3RMb2dDbGljaz10cnVl

scrap MDF (electronics board)

Tools:

- _Soldering iron
- _Tweezers
- _Screwdriver
- _3D printer