**ASSEMBLY AND WIRING**

Given below are the steps to assemble this circuit:

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| FLEX SENSOR ASSEMBLY | | |
| 1. | SOLDER  Solder jumper wires to the flex sensor to make connections to the breadboard easier. | Macintosh HD:Users:dhariniparthasarathy:Dropbox:Screenshots:Screenshot 2016-03-07 15.14.31.png |
| 2. | ATTACH THE FLEX SENSOR  Attach the other ends of the jumper wires to the breadboard | Macintosh HD:Users:dhariniparthasarathy:Dropbox:Screenshots:Screenshot 2016-03-07 15.14.44.png |
| 3. | ATTACH THE RESISTOR  Since the Flex sensor is a variable resistor, it does not matter which side is connected to the resistor. In this project, I have connected the thick strip to the resistor. | Macintosh HD:Users:dhariniparthasarathy:Dropbox:Screenshots:Screenshot 2016-03-07 15.14.53.png |
| DRV2605 MOTOR DRIVER ASSEMBLY | | |
| 4. | PREPARE THE HEADER STRIP  Cut the header strip to the length required and insert it into the breadboard with the long pins down. | Macintosh HD:Users:dhariniparthasarathy:Dropbox:Screenshots:Screenshot 2016-03-07 14.35.51.png |
| 5. | PLACE THE BREAKOUT BOARD  Place the DRV 2605 over the header strip so that the short pins poke through the holes. | Macintosh HD:Users:dhariniparthasarathy:Dropbox:Screenshots:Screenshot 2016-03-07 14.36.12.png |
| 6. | SOLDER  Solder all the pins for more reliable contact. Be sure to solder the longer Power/Data pin first. | Macintosh HD:Users:dhariniparthasarathy:Dropbox:Screenshots:Screenshot 2016-03-07 14.36.22.png |
| 7. | ATTACH THE MOTOR  Attach the motor directly into the Motor+ and Motor- pads. To do this, slip the wires into the holes in the middle of the pads. | Macintosh HD:Users:dhariniparthasarathy:Dropbox:Screenshots:Screenshot 2016-03-07 14.36.41.png |
| 8. | SOLDER  Solder the wires in place. | Macintosh HD:Users:dhariniparthasarathy:Dropbox:Screenshots:Screenshot 2016-03-07 14.36.48.png |
| WIRING | | |
| 9. | 1. Connect the 5V to one end of the breadboard to create a common 5V source. 2. Connect a GND pin next to the 5V to create a common GND. 3. Connect the thin side of the flex sensor to GND. 4. Connect the thick side (the one that is already connected to the resistor) to Analog pin A0. 5. Connect the other end of the resistor to 5V. 6. Connect Vin in the DRV2605 to 5V. 7. Connect GND in the DRV2605 to the common GND. 8. Connect the SCL pin to Analog pin A5. 9. Connect the SDA pin to Analog pin A4. | |
| 10. | YOU’RE DONE!  Check that all the connections are secure before moving on.  Macintosh HD:Users:dhariniparthasarathy:Dropbox:Screenshots:Screenshot 2016-03-07 15.31.02.png | Macintosh HD:Users:dhariniparthasarathy:Dropbox:Screenshots:Screenshot 2016-03-07 15.31.32.png |
| Macintosh HD:Users:dhariniparthasarathy:Dropbox:Screenshots:Screenshot 2016-03-07 15.30.54.png | | |