PARAMETER SELECTION FOR SERVO EXPERIMENTS

1)SERVO\_INIT:

* ARDUINO\_SETUP block: Right-click and open the block properties or double click on this block. In the resulting dialog window, enter the com port number of your

system.(card 1 on com 2 here)

* TIME\_SAMPLE block: Following the procedure mentioned above, set duration(s) as 10 and sampling period(s) as 0.1. Leave other parameters set to their default values.
* CONSTANT block: Set constant value as 30(to rotate servo at an angle of 30 degrees).
* SERVO\_WRITE\_SB block: Select servo number to be used. If using Pin 9 to connect the signal select Servo 1. If using pin 10 then select Servo 2. Here Pin 9 is used to connect Signal terminal of Servo Motor. Therefore, Servo 1 is used

2)SERVO-REVERSE:

* ARDUINO\_SETUP block: Right-click and open the block properties or double click on this block. In the resulting dialog window, enter the com port number of your

system.(card 1 on com 2 here)

* TIME\_SAMPLE block: Following the procedure mentioned above, set duration(s) as 10 and sampling period(s) as 0.1. Leave other parameters set to their default values.
* STEP\_FUNCTION block: Right click and give initial value as 90 degrees. Give final value as 45 degrees to rotate it by that angle. Further, set the step time as 1,Since we want it to change angle after a delay of 1 second.
* SERVO\_WRITE\_SB block: Select servo number to be used. If using Pin 9 to connect the signal select Servo 1. If using pin 10 then select Servo 2. Here Pin 9 is used to connect Signal terminal of Servo Motor. Therefore, Servo 1 is used.

3) SERVO-LOOP:

* ARDUINO\_SETUP block: Right-click and open the block properties or double click on this block. In the resulting dialog window, enter the com port number of your system.(card 1 on com 2 here)
* TIME\_SAMPLE block: Following the procedure mentioned above, set duration(s) as 10 and sampling period(s) as 0.1. Leave other parameters set to their default values.
* CLOCK\_c block: Set clock Period as 1and initialization time as 0.1.
* COUNTER block: Set Minimum value to 0 and Maximum Value to 1. Select rule to 1 so as to indicate increment.
* GAIN block: Set Gain to 20 and Do on Overflow to 0, indicating nothing.
* SERVO\_WRITE\_SB block: Select Servo no. as 1 and Arduino card no. as 1.

4)SERVO-POT:

* ARDUINO\_SETUP block: Right-click and open the block properties or double click on this block. In the resulting dialog window, enter the com port number of your system.(card 1 on com 2 here)
* TIME\_SAMPLE block: Following the procedure mentioned above, set duration(s) as 10 and sampling period(s) as 0.1. Leave other parameters set to their default values.
* ANALOG\_READ\_SB block: Set clock Period as 1and initialization time as 0.1.
* GAIN block: Set Gain to 180/1023 so as to map analog read values(from 0 to 1023) to Servo motor angles(0 to 180).
* SERVO\_WRITE\_SB block: Select Servo no. as 1 and Arduino card no. as 1.