**Pushup Procedure**

* 1. **Introduction**
     1. **Purpose:** the purpose of this article is to provide steps specific enough to allow a robot without previous knowledge of a pushup to perform pushups.
  2. **Precautions:** do not perform procedure near water; have access to a power cord that's at least 6ft long or a battery that can be secured to the robot.
  3. **Prerequisites:** have a 6x3ft2 or greater space to safely perform the procedure; have access to a power source.
  4. **Procedure**
     1. **Prep work**
        1. Clear off workspace.
        2. Secure power cord or battery.
     2. **Pushup Preparation**
        1. Bend legs into crouching position by rotating knee joint until the upper leg is flush with the lower leg and lower leg is flush with the foot for both legs.
        2. Extend both arms out to a 45-degree angle so that when falling the base of the hands land below the shoulder joint.
        3. Shift weight by bending the upper body at torso joint forward to fall towards the ground. Use the extended arms to brace fall.

*Note****—***avoid shifting weight forward too quickly to avoid causing damage to arms.

* + - 1. With arms on the ground as support, extend legs back until only the hands, knees, and toes are contacting the ground.
      2. Extend knees further until the body is suspended over the ground with the only two points of contact being toes and hands. Hands should be positioned directly below the shoulder joints.
    1. **Pushup Sequence**
       1. Contract arms to a 45-degree angle at the elbow joint to perform the first half of a pushup and wait 2 seconds.
       2. Straighten arms performing the second half of a pushup and wait 2 seconds.
    2. Repeat **pushup sequence** steps *a* to *b* 2 more times to perform 3 total pushups.
    3. **Post-Performance Activities**
       1. Extend toes and arms and fall flat to the ground.
       2. Contract both knee joints to have the upper leg be flush with the lower leg.
       3. Contract both feet at the ankle joints to have feet flush with lower legs.
       4. Contract torso joint moving legs until knee joints are touching the ground.
       5. Extend left leg with left toes contacting the ground.
       6. Extend right leg with right toes contacting ground to make left foot fully contact the ground.
       7. Adjust right foot to fully contact the ground.
       8. Slide right foot over to be next to the left foot.
       9. Extend legs to stand up.

