

## **Data Annotation Instructions:**

### **Instructions on annotating each individual movement:**

#### **Movement 1 – Sit to stand:**

Start: When the person begins to stand up

End: When they have finished standing up (when no significant movement is occurring)

#### **Movement 2 – Stand to sit:**

Start: When the person begins to sit down

End: When they have finished sitting down (when no significant movement is occurring)

#### **Movement 3 – Sit to lie:**

Start: When the person begins to lie down

End: When they have finished lying down (when no significant movement is occurring)

#### **Movement 4 – Lie to sit:**

Start: When the person begins to sit up

End: When they have finished sitting up (when no significant movement is occurring)

#### **Movement 5 – Step forward & backward:**

Start: When the person begins to step forward

End: When the person is again back at their original position.

#### **Movement 6 – Looking back right:**

Start: When person begins to look back to the right

End: When the person is again looking straight forward

#### **Movement 7 – Grasping from floor:**

Start: When the person begins to reach down

End: When the person has stood back up. Note: *Do not* annotate the times when the person is putting the object back on the ground. It may be very similar in type of movement, but for the sake of consistency we will not annotate these.

#### **Movement 8 – Turning 90 degrees to the right:**

Start: When the person begins to turn to face right

End: When the person has finished turning right. Note: Unlike the movement Looking Back to the Right, we do not want to annotate when the person is facing forward again.

#### **Movement 9 – Grasping from shelf:**

Start: When the person begins to grab the object from the shelf

End: When the person has the object and is close to their original position. Note: *Do not* annotate the times when the person is putting the object back on the shelf, same as Grasping from Floor.

#### **Movement 10 – Jumping**

Start: When the person begins to jump

End: When they have landed, and the data from the sensors has subsided a little.

#### **Movement 11 – Step left and right:**

Start: When the person begins to step to the left

End: When the person is back in their original position

**Movement 12 – Eating:**

Start: When the person begins to lift the utensil up towards their face

End: When the person has moved the utensil back towards its original position.

**Movement 13 – Drinking:**

Start: When the person begins to lift the cup up towards their face

End: When the person has moved the cup back towards its original position.

**Movement 14 – 16, Basic \_\_\_\_:**

These movements are a little special. We want these in ~200 sample segments. The reasoning behind this is that the data was collected at 200 Hz, meaning each 200 samples is 1 second. The first start should be around 10 to 50 samples in, or whenever there is not much activity in the data. *We want to avoid sections where the subject is moving around.* Just chop these into 200 sample segments as best you can avoiding movement.

**Movement 17 – Walking:**

Start: When the person begins to put their first foot forward

End: Every subsequent time the person begins to put this first foot forward.

Example: Person puts their right foot forward first. We want an annotation here. They have taken a step with their left foot and the right foot is beginning to move forward again. We want another annotation here, and another directly after it (this is the start of the next annotation – remember annotations are in pairs of two), and then again when they are about to put the right foot forward again, etc.

**Transitional Movements:**

The following movements are special, in that they are what we refer to as 'transitional'. What this means is that each movement has a transition into a neutral state, followed by a neutral state (that could potentially be held for a long period of time), and then followed again by a transition back into the original state. For each time that one of these movements is performed, there should be 4 annotations – one at the start of the transition in, one when they are in the 'neutral state', one when they begin to transition back to their original state, and finally one where they are at the original state.

**Movement 18 – Sitting (1) (legs crossed over knee)**

**Movement 19 – Sitting (2) (legs crossed at ankles)**

**Movement 20 – Standing (1) (legs crossed over one another while standing)**

**Movement 21 – Standing (2) (shifted weight onto right foot)**

**Movement 22 – Kneeling**

**Movement 23 – Using Phone**

**Hotkeys for the data annotation tool:**

,    **on arrow keys:** move cursor left or right 1 frame.

**Up on arrow keys:** play video, moving cursor along with it at 1x speed.

**Down on arrow keys:** play video, moving cursor along with it at 1/3x speed. This can be slow on less powerful computers.

**Delete an annotation:** Hit 'd', then hold down right click and slide over to define the area in which annotations are to be deleted

**Zoom in:** Hold down 'shift' and left click, sliding to the right over area to zoom in on

**Zoom out:** Hold down 'shift' and left click, sliding to the left over any amount of the graph to show the full graph.

**Place annotation:** Hit 'space' or right click