Test Task Scenarios & Script
Subject 0002

Welcome Message (for all scenarios)

System: Intersect-Assist is an application which provides information about intersections to the visually impaired community.

System: "At any time, if you wish to skip the information being provided, please tap the screen once."

System: "When you get to an intersection, swipe the screen downwards to know about the intersection."

System: "You may also swipe up to start the traffic light detection"

Scenario # 1
Intersection: Chambly Way and Leblanc O.
Design Prototype: Prototype 1 (Spatialized audio)

System: "Swipe the screen downwards to get the mapping information. Swipe the screen upwards to start the traffic light detection and veering."

User: if swipe down, repeat last message.
User: if swipe up,

System:
[*From the front (both ears)*] "Intersection: **Chambly Way** and **Leblanc O., T-Shape** configuration."
[*From the left (left ear only)*] "**Leblanc O.** is a **two-way street, two lanes. T**raffic must turn right or left."
[From the front (both ears)] "**Chambly Way** is a two**-way street, four lanes.**"
[From the front (both ears)] "**T**he closest **two lanes** ahead flow from your **left to your right.**"
[From the front (both ears)] "**T**he further **two lanes** flow from your **right to your left**.**"**
[*From the front (both ears)*] "**Swipe down** to repeat the mapping information. **Swipe up** to start the traffic light detection and veering."

User: if swipe down, repeat intersection message.
User: if swipe up,

System:
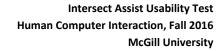[*From the front (both ears)*] "Detection started. Waiting for light to turn green."
[*From the front (both ears, when the light turns green)*] "The light is green. Start crossing when you feel comfortable!"
[*If veers toward the left*] **"Beep** from the **left** earphone**"**
[*If veers toward the right*] **"Beep** from the **right** earphone**"**
[*When finish crossing*] "Swipe down to get the mapping information. Swipe up to start the traffic light detection and veering."

User: if swipe down, repeat intersection message.

Scenario # 2
Intersection: Leblanc O. and Chambly Way
Design Prototype: Prototype 1 (Spatialized audio)

System: "Swipe the screen downwards to get the mapping information. Swipe the screen upwards to start the traffic light detection and veering."

User: if swipe down, repeat last message.
User: if swipe up,

System:
[*From the front (both ears)*] "Intersection: **Leblanc O. and Chambly Way, T-Shape** configuration."
[*From the left (left ear only)*] "**Chambly Way** is a **two-way street, four lanes.**"
[*From the left (left ear only)*] "The closest **two lanes** flow from **behind to front.**"
[*From the left (left ear only)*] "**T**he further **two lanes** flow from **front to your behind**."
[From the front (both ears)] "**Leblanc O.** is a **two-way street, two lanes**.**"**
[From the front (both ears)] "**T**raffic must turn right or left.**"**
[*From the front (both ears)*] "**Swipe down** to repeat the mapping information. **Swipe up** to start the traffic light detection and veering."

User: if swipe down, repeat intersection message.
User: if swipe up,

System:
[*From the front (both ears)*] "Detection started. Waiting for light to turn green."
[*From the front (both ears, when the light turns green)*] "The light is green. Start crossing when you feel comfortable!"
        [*If veers toward the left*] **"Beep** from the **left** earphone**"**
        [*If veers toward the right*] **"Beep** from the **right** earphone**"**
        [*When finish crossing*] "Swipe down to get the mapping information. Swipe up to start the traffic light detection and veering."
[*From the front (both ears, when no light detected)*] "Cannot detect light. Please rotate a bit or walk to controlled intersection."

User: if swipe down, repeat intersection message.

Scenario # 2
Intersection: Leblanc O. and Chambly Way
Design Prototype: Prototype 1 (Spatialized audio)

System: "Swipe the screen downwards to get the mapping information. Swipe the screen upwards to start the traffic light detection and veering."

User: if swipe down, repeat last message.
User: if swipe up,

System:
[*From the front (both ears)*] "Intersection: **Leblanc O. and Chambly Way, T-Shape** configuration."
[*From the left (left ear only)*] "**Chambly Way** is a **two-way street, four lanes."**
[*From the left (left ear only)*] "The closest **two lanes** flow from **behind to front."**
[*From the left (left ear only)*] "**T**he further **two lanes** flow from **front to your behind**."
[From the front (both ears)] "**Leblanc O.** is a **two-way street, two lanes**.**"**
[From the front (both ears)] "**T**raffic must turn right or left.**"**
[*From the front (both ears)*] "**Swipe down** to repeat the mapping information. **Swipe up** to start the traffic light detection and veering."

User: if swipe down, repeat intersection message.
User: if swipe up,

System:
[*From the front (both ears)*] "Detection started. Waiting for light to turn green."
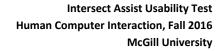[*From the front (both ears, when the light turns green)*] "The light is green. Start crossing when you feel comfortable!"
[*If veers toward the left*] **"Beep** from the **left** earphone**"**
[*If veers toward the right*] **"Beep** from the **right** earphone**"**
[*When finish crossing*] "Swipe down to get the mapping information. Swipe up to start the traffic light detection and veering."
[*From the front (both ears, when no light detected)*] "Cannot detect light. Please rotate a bit or walk to controlled intersection."

User: if swipe down, repeat intersection message.

Scenario # 3
Intersection: Chambly Way and Briggs O.
Design Prototype: Prototype 2 (Spatialized audio)

System: "Swipe the screen downwards to get the mapping information. Swipe the screen upwards to start the traffic light detection and veering."

User: if swipe down, repeat last message.
User: if swipe up,

System:
[*From the front*] "Intersection: **Leblanc O. and Chambly Way, T-Shape** configuration."
[*From the front*] "**Chambly Way** is a **two-way street, four lanes."**
[*From the front*] "The closest **two lanes** flow from **behind to front."**
[*From the front*] "**T**he further **two lanes** flow from **front to your behind**."
[From the front] "**Leblanc O.** is a **two-way street, two lanes**.**"**
[From the front] "**T**raffic must turn right or left.**"**
[*From the front*] "**Swipe down** to repeat the mapping information. **Swipe up** to start the traffic light detection and veering."

User: if swipe down, repeat intersection message.
User: if swipe up,

System:
[*From the front (both ears)*] "Detection started. Waiting for light to turn green."
[*From the front (both ears, when the light turns green)*] "The light is green. Start crossing when you feel comfortable!"
      [*If veers toward the left*] **"Beep** from the **left** earphone**"**
      [*If veers toward the right*] **"Beep** from the **right** earphone**"**
      [*When finish crossing*] "Swipe down to get the mapping information. Swipe up to start the traffic light detection and veering."
[*From the front (both ears, when no light detected)*] "Cannot detect light. Please rotate a bit or walk to controlled intersection."
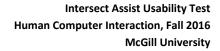
User: if swipe down, repeat intersection message.

Case 2 for Subject 0002 (Chambly Way and Briggs O.)

Normal Audio Mapping and Stereo Beep Audio for veering

Option 2

"Swipe the screen downwards to get the mapping information. Swipe the screen upwards to start the traffic light detection and veering." (If swipe down, repeat above.)

"Intersection: **Briggs O. and Chambly Way, 4-way** configuration. **Chambly Way** is a two**-way street, four lanes. T**he closest **two lanes** flow from **behind to front. T**he further **two lanes**

flow from **front to your behind**. **Briggs O.** is a **two-way street, two lanes.** The closest lane flows from left to right. The further lane flows from right to left."

"Swipe the screen downwards to repeat the mapping information. Swipe the screen upwards to start the traffic light detection and veering." (If swipe down, repeat above.)

If swipe up:

"Waiting for light to turn green."

From the front (both ears, When the light turns green)

"The light is green. Start crossing when you feel comfortable!"
The entire time, a step beep comes on every 0.5 seconds.

If veers toward the left, lower volume from right ear
If veers toward the right, lower volume from left ear

Option 2 only

"Swipe the screen downwards to get the mapping information. Swipe the screen upwards to start the traffic light detection and veering." (If swipe down, repeat above.)

"Intersection: **Chambly Way and Briggs O., 4-way** configuration. **Briggs O.** is a **two-way street, two lanes.** The closest lane flows from behind to front. The further lane flows from front to behind. **Chambly Way** is a two-**way street, four lanes. T**he closest **two lanes** ahead flow from your **left to your right. T**he further **two lanes** flow from your **right to your left**."

"Swipe the screen downwards to repeat the mapping information. Swipe the screen upwards to start the traffic light detection and veering." (If swipe down, repeat above.)

If swipe up:
"Waiting for light to turn green."

From the front (both ears, When the light turns green)
"The light is green. Start crossing when you feel safe!" The
entire time, a step beep comes on every 0.5 seconds.
If veers toward the left, lower volume from right ear
If veers toward the right, lower volume from left ear

Case 3 for Subject 0002 (Chambly Way, Frontenac, Rue Cure Poirier)

Normal Audio Mapping and haptics for veering

Option 2 only

"Swipe the screen downwards to get the mapping information. Swipe the screen upwards to start the traffic light detection and veering." (If swipe down, repeat above.)

"Intersection: **Chambly Way and Cure Poirier, 4-way** configuration. **Cure Poirier** is a **two-way street,** four **lanes.** The closest 2 lanes flow from behind to front. The further lanes flow from front to behind. **Chambly Way** is a two-**way street, four lanes. T**he closest **two lanes** ahead flow from your **left to your right. T**he further **two lanes** flow from your **right to your left**."

"Swipe the screen downwards to repeat the mapping information. Swipe the screen upwards to start the traffic light detection and veering." (If swipe down, repeat above.)

If swipe up:

"Waiting for light to turn green." When green

Vibration

"Swipe the screen downwards to get the mapping information. Swipe the screen upwards to start the traffic light detection and veering." (If swipe down, repeat above.)

"Intersection: **Frontenac and Chambly Way, 4 -way** configuration. **Chambly Way** is a two-**way street, four lanes.** The closest **two lanes** flow from **behind to front. T**he further **two lanes** flow from **front to your behind**. **Frontenac** is a **two-way street, five lanes. T**he closest **two lanes** ahead flow from your **left to your right. T**he next **two lanes** flow from your **right to your left**. The furthest lane flows must turn right on a stop sign."

"Swipe the screen downwards to repeat the mapping information. Swipe the screen upwards to start the traffic light detection and veering." (If swipe down, repeat above.)

If swipe up:

"Waiting for light to turn green." When green

Vibration