# Pebball! WebSocket API

## Actors

Pebble Client - A user's Pebble smartwatch
Web Server - Pebball Web interface

## Initiating WebSocket Connection

When a user connects to the Web Server through a web browser on a device separate from the Pebble Client, the website will first generate a unique WebSocket URL using three randomly generated digits (not going for super high security or complexity here). This will be combined with the Web Server's domain name to create a WebSocket URL like: wss://pebball.com/286.

Only this number will be displayed to the user, prompting them to input it on the Pebble Client when they first launch the game. The Pebble Client will connect to a WebSocket by taking the hardcoded domain name, and concatenating the numerical input to the end.

## Protocol Sequence

1. Pebble Client launched, 3 digit code prompted
2. 3 digit code used to connect to Web Server WebSocket
   a. On ACK, proceed to game menu on both Pebble Client and Web Server (actually we can probably skip this because the JS websocket connect function returns a value on successful connect...)
3. When Pebble Client selects game start, send Start Game Event to Web Server.
   a. On ACK, proceed to batter position calibration on Pebble Client and Web Server.
4. When Pebble Client batting position ready, send Batter Position Ready Event to Web Server.
   a. On ACK, respond to Pebble Client with Pitcher Throw Event.
5. If the Pebble Client batter swings after the vibration cue, send Batter Hit Event to Web Server. If the Pebble Client batter swings too early or doesn't swing at all, send Batter Miss Event to Web Server.
   a. Web Server display swing score result.
   b. On ACK, proceed to batter position calibration on Pebble Client Web Server.
6. Repeat steps 3-5 until user closes game.

## ACK Event

Initiated by Web Server. Pebble AppMessage ID: 16

| Field Name | Type | Value |
|---|---|---|
| event | String | "ACK" |
| ackd_event | Int | Matching value of event field ACK-ing to. (i.e. 17, 18, 19) |

# WebSocket Connect Event

Initiated by Pebble Client. Pebble AppMessage ID: 17

| Field Name | Type | Value |
|---|---|---|
| id | String | "pebble" |
| event | Int | 17 |

# Start Game Event

Initiated by Pebble Client. Pebble AppMessage ID: 18

| Field Name | Type | Value |
|---|---|---|
| id | String | "pebble" |
| event | Int | 18 |
| wrist_position | Char | "L" or "R" |

# Batter Position Ready Event

Initiated by Pebble Client. Pebble AppMessage ID: 19

| Field Name | Type | Value |
|---|---|---|
| id | String | "pebble" |
| event | Int | 19 |

# Pitcher Throw Event

Initiated by Web Server. Pebble AppMessage ID: 20

| Field Name | Type | Value |
|---|---|---|
| event | Int | 20 |
| pitch_reach_time | Int | 2-8 |

# Batter Hit Event

Initiated by Pebble Client. Pebble AppMessage ID: 21

| Field Name | Type | Value |
|---|---|---|
| id | String | "pebble" |
| event | Int | 21 |
| swing_epoch | Int | Epoch of Pebble Client when swing event triggered. |

# Batter Miss Event

Initiated by Pebble Client. Pebble AppMessage ID: 22

| Field Name | Type | Value |
|---|---|---|
| id | String | "pebble" |
| event | Int | 22 |