

# EEG Acquisition (ACK) Block

- (1) Start SSVEP block in background with  $(f_1, f_2)$  as frequency parameters
- (2) Start SP block in background
- (3) Create a socket connection between this block and SP block
- (4) Initialize Emotiv EEG
- (5) Execute main BCI loop for  $n\_trials$  times (or infinitely)
  - (a) Acquire resting EEG for *duration* seconds
  - (b) Send signal to SSVEP block to start flickering
  - (c) Acquire SSVEP EEG for *duration* seconds
  - (d) Send signal to SSVEP block to stop flickering
  - (e) Send EEG data to SP block for processing over the socket

Socket

- Block until the arrival of a signal
- .....Signal received
- Start flickering the LEDs
- .....Signal received

SSVEP Stimulation Block

- Listen the socket for new EEG data
- Process EEG data and select between **left** ( $f_1$ ) or **right** ( $f_2$ ).

Signal Processing (SP) Block