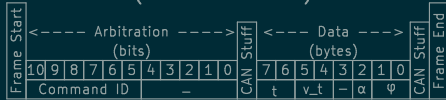




## CAN1 Frames

### Throw Command (To Ball Butler)



Command ID = 0X7D0

Yaw angle:  $(0-360^\circ) - \varphi$

1 byte gives:  $360/2^8 = 1.4^\circ$  resolution (N)

2 bytes gives:  $360/2^{16} = 0.0055^\circ$  res. (Y)

Pitch angle:  $(0-90^\circ) - \alpha$

1 byte gives:  $90/2^8 = 0.35^\circ$  resolution (Y)

Throw Speed:  $-v_t$

2 bytes (@ 0.1 mm/s per LSB)

Throw Time:  $-t$

2 bytes (@ 1 ms per LSB)

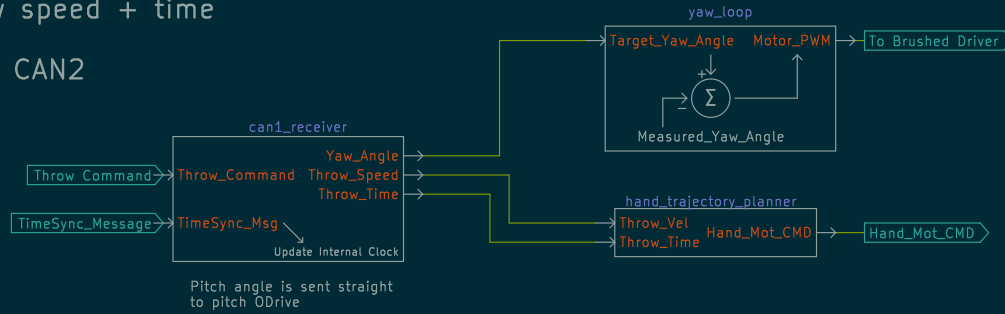
## UPDATE

Jugglebot as main brain.

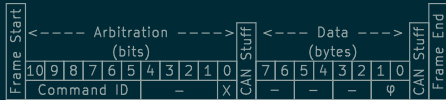
Tells Ball Butler:

- Yaw angle
- Pitch angle
- Throw speed + time

CAN1 = CAN2



### Call and Response (Relaying initial yaw angle)



Command ID = 0X7D1

Call (from JB):

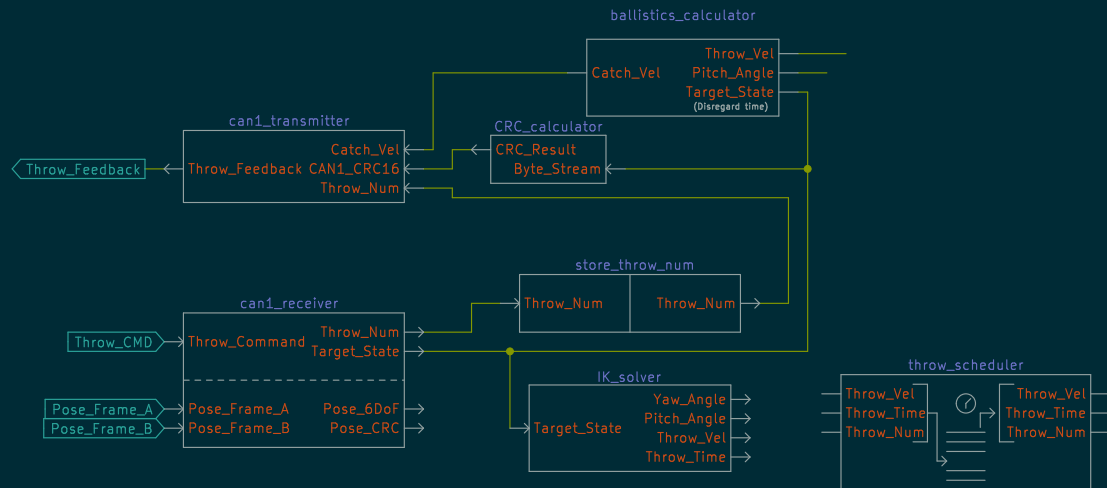
X = 0

φ = -

Response (from BB):

X = 1

φ = yaw angle (0.0055° res.)



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Rev: 3

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