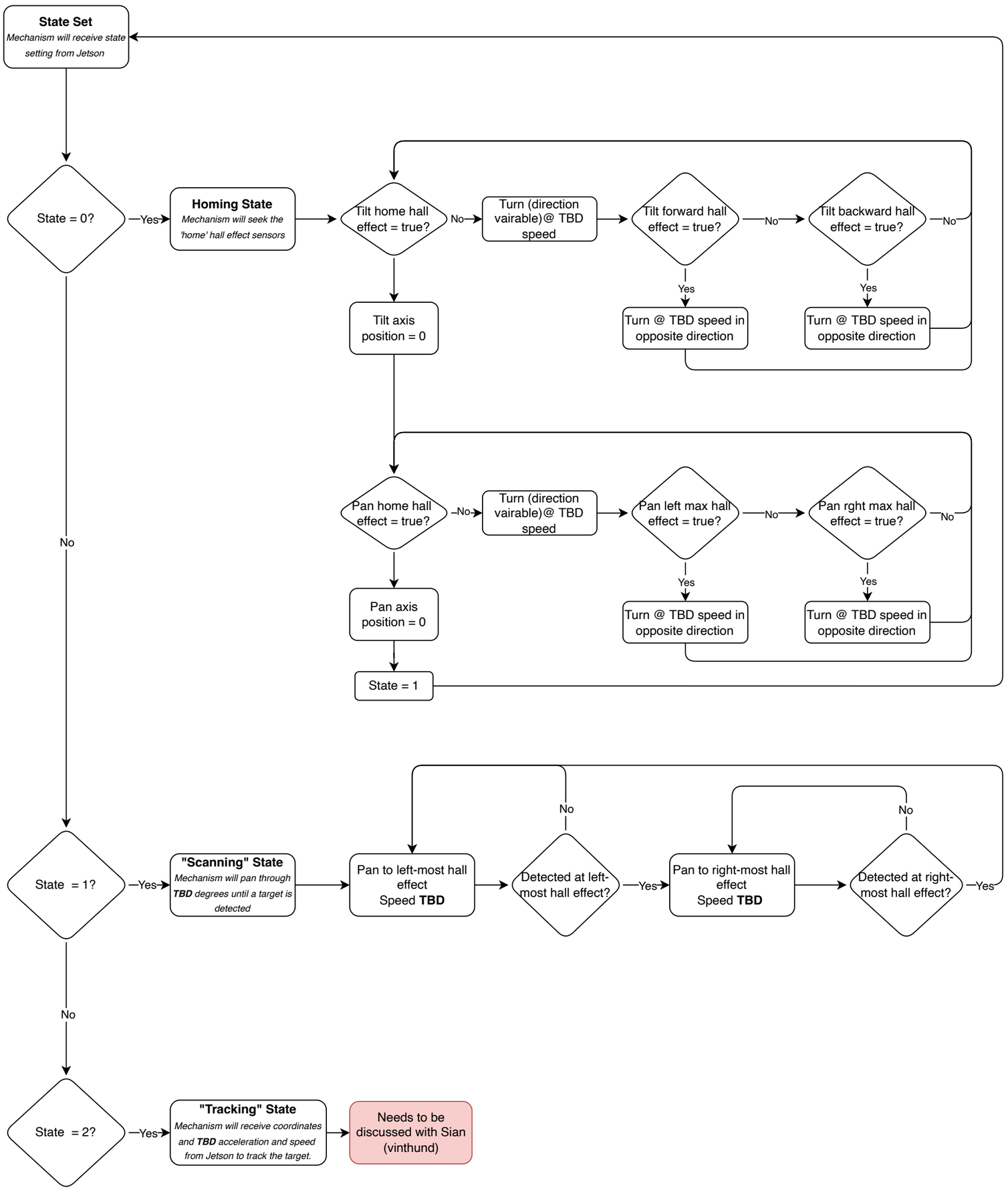

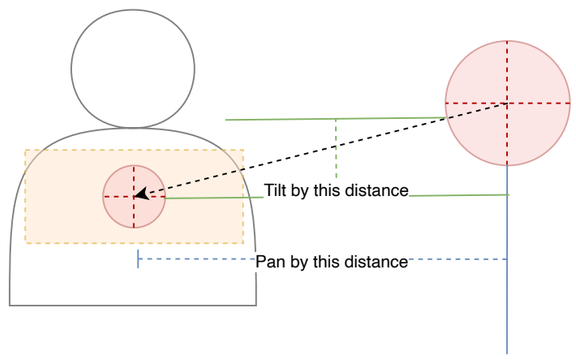

The machine vision system will have to:

1. Identify the target
2. Identify "centre mass"
3. Calculate coordinates between target and centre of frame and send to pan/tilt mech
4. Decide if target is close enough to target to fire or not
5. Repeat 1-4 for each frame

The machine vision system should always seek to get the target back within the centre of frame.

It should do this by calculating how many steps the pan/tilt mechanism would need to traverse in both Pan/Tilt (X/Y) to get the target in the centre of frame.

If the machine vision system is capable of operating at the full frame-rate of the selected camera, these coordinates would update every 33.33ms.

The AccelStepper library being used to drive the stepper motors on the pan/tilt mech has lots of useful functions, but the pan/tilt mech process for receiving the coordinates from Jetson and then driving the mech to them needs to be done in tandem with Sian and Harshitha.
(https://www.airspayce.com/mikem/arduino/AccelStepper/classAccelStepper.html)