

Which would be the best choice of template?

- ☐ A.
- ☒ B.
- ☐ C.

 **Correct**

This template likely has detectable features that are both stable and unique.


Consider the following code, which provides a general overview of the steps necessary for simple video stabilization:

1 / 1 point

```
1  templateMatcher = vision.TemplateMatcher('ROIInputPort',true);
2  templatePos = templateMatcher(curFrame,template,searchROI);
3
4  displacement = templatePos - prevTemplatePos;
5  totalOffset = totalOffset - displacement;
6
7  stabilizedFrame = imtranslate(curFrame,totalOffset);
```

In which line of code is the cumulative camera motion calculated?

- ☐ line 2
- ☒ line 5
- ☐ line 7

 **Correct**

Because we choose a stationary template object, the cumulative displacement of the reference object over all frames must be due to camera motion.

3. What was the average optical flow magnitude between frames 55 and 56 of the **shaky** video?

1 / 1 point

0.63269

✓ Correct

```
mean(flow.Magnitude(:))
```

4. What was the average optical flow magnitude between frames 55 and 56 of the **stabilized** video?

1 / 1 point

0.32938

✓ Correct

```
mean(flow.Magnitude(:))
```